

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF OHIO
EASTERN DIVISION**

Center for Biological Diversity, *et al.*,

Plaintiffs,

v.

Case No. 2:17-cv-372

U.S. Forest Service, *et al.*,

**Judge Michael H. Watson
Magistrate Judge Jolson**

Defendants.

OPINION AND ORDER

Four non-profit organizations, the Center for Biological Diversity (“the Center”), Heartwood, Ohio Environmental Council (“OEC”), and the Sierra Club (together, “Plaintiffs”) move for summary judgment under the Administrative Procedure Act, 5 U.S.C. § 551 *et seq.* (“APA”) against the United States Forest Service (“USFS”), the United States Bureau of Land Management (“BLM”), the United States Fish and Wildlife Service (“FWS”), Vicki Christiansen in her official capacity as Chief of USFS, William Perry Pendley in his official capacity as acting director of BLM, and Aurelia Skipwith in her official capacity as director of FWS (together, “Defendants”).¹ Pls.’ Mot. for Summ. J., ECF No. 83. Defendants oppose Plaintiffs’ motion and move for summary judgment. ECF No. 92.

American Petroleum Institute (“API”), Independent Petroleum Association of America (“IPAA”), and Eclipse Resources I, LP (“Eclipse”) have entered the

¹ Pursuant to Federal Rule of Civil Procedure 25(d), the Court substitutes the names of the public officials sued in their official capacities.

action as Intervenor Defendants (collectively, “Intervenors”). See ECF Nos. 52, 71. Intervenors echo Defendants’ motion for summary judgment and move independently for the same. Eclipse Mot. for Summ. J., ECF No. 97; API & IPAA Mots. for Summ. J., ECF No. 99.

Additionally, Plaintiffs move for judicial notice, ECF No. 84, and the American Forestry Resource Counsel and Ohio Forestry Associate Inc. (“Amici”) move for leave to file an Amicus Curiae Brief. ECF No. 94. Both motions are opposed.

I. LEGAL BACKGROUND²

A. Oil and Gas Leasing in the National Forest System Lands

1. Governing Law

The Mineral Leasing Act of 1920 (the “MLA”), 30 U.S.C. § 181, *et seq.*, established a permit and leasing system that granted the Secretary of the Interior broad discretion in deciding whether to lease particular federal lands. The Federal Onshore Oil and Gas Leasing Reform Act of 1987, 30 U.S.C. § 226(g)–(h) (“FOOGLRA”), which amends the MLA, divides leasing responsibility between the Secretary of the Interior, acting through BLM, and the Secretary of Agriculture, acting through USFS. See 30 U.S.C. § 226(h)–(n); 43 C.F.R. § 3101.7–2(a). Generally, USFS manages the surface of the forest lands, and BLM manages the subsurface of the lands. 30 U.S.C. § 226(g). While BLM has

² The Court incorporates, as relevant, the Legal Background Section from its previous Opinion and Order on Plaintiffs’ Mot. to Compel. See ECF No. 78.

ultimate authority over leasing, it may not issue a lease on forest lands over USFS's objection. 43 C.F.R. § 3101.7–2(c). Prior to issuing a lease on federal land, BLM and USFS must verify that the activity approved by the lease complies with the National Environmental Policy Act ("NEPA"), NEPA's implementing regulations at 43 C.F.R. §§ 1500–08, and USFS policies and procedures. 36 C.F.R. § 228.102(a).

NEPA "has twin aims." *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983). It obliges an agency "to consider every significant aspect of the environmental impact of a proposed action" and to "inform the public that it has indeed considered environmental concerns in its decisionmaking process." *Id.* "NEPA serves procedural rather than substantive goals, and is not a 'results-driven' statute." *Latin Ams. for Soc. and Econ. Dev. v. Adm'r of Fed. Highway Admin.*, 756 F.3d 447, 462 (6th Cir. 2014). As a result, "[e]ven agency action with adverse environmental effects can be NEPA-compliant so long as the agency has considered those effects and determined that competing policy values outweigh those costs." *Id.* (quoting *Kentuckians for the Commonwealth v. U.S. Army Corps of Eng'rs*, 746 F.3d 698, 706 (6th Cir. 2014)); see also *Balt. Gas & Elec. Co.*, 462 U.S. at 97 ("Congress in enacting NEPA . . . did not require agencies to elevate environmental concerns over other appropriate considerations."). At bottom, NEPA's procedural requirements exist to ensure that decisions to lease are "fully informed and well-considered." *Latin Ams. for*

Soc. and Econ. Dev., 756 F.3d at 462 (quoting *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council*, 435 U.S. 519, 558 (1978)).

Under NEPA's procedural requirements, whenever a federal agency endeavors to take "major . . . action[] significantly affecting the quality of the human environment"—which may include opening up federal lands for oil and gas leasing—the agency must first generate a "detailed statement" reviewing the environmental impacts of the proposed action and alternatives to that action. 42 U.S.C. § 4332(C).³ This statement is referred to as an environmental impact statement ("EIS"), and it constitutes a "NEPA document." Developing the EIS fulfills NEPA's procedural guarantee of informed decision-making because it compels the agency producing the EIS to take a "hard look at environmental consequences" stemming from its actions. *Ky. Riverkeeper, Inc. v. Rowlette*, 714 F.3d 402, 407 (6th Cir. 2013).

"To spare agencies the hardship of conducting exhaustive review of every" proposed significant federal action, however, federal regulations allow the acting

³ Specifically, the statute requires the agency to consider:

- (i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Id.

agency “to first prepare a less burdensome environmental assessment [(“EA”)] as a method for determining whether a proposal need[s] an [EIS].” *Id.* at 407–08; 40 C.F.R. § 1501.4(a)–(c). If, after preparing an EA, the agency determines that no EIS is required, the agency must issue a Finding of No Significant Impact, which “briefly present[s] the reasons why an action . . . will not have a significant effect on the human environment and” thus does not require an EIS. 40 C.F.R. §§ 1501.4(e), 1508.13.

Finally, an agency must prepare supplements to a draft or final EIS if the agency “makes substantial changes in the proposed action that are relevant to environmental concerns” or if “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.” 40 C.F.R. § 1502.9(c)(1). The agency may also prepare a supplement at any time that it “determines that the purposes of [NEPA] will be furthered by doing so.” *Id.* § 1502.9(c)(2).

2. *The Leasing Process*

The leasing process consists of a complex series of procedures during which USFS and BLM share responsibility for ensuring that the leasing decision and subsequently issued permits to drill comply with NEPA, NEPA’s implementing regulations, and USFS’s Forest Plan. See *Wy. Outdoor Council v. Bosworth*, 284 F. Supp. 2d 81, 83 (D.D.C. 2003) (outlining the process in detail). In 2006, USFS and BLM entered into a memorandum of understanding that further clarifies their shared responsibilities.

At the first step of the leasing process, after conducting a NEPA analysis, USFS determines which forest lands it will make administratively available to BLM for leasing. 36 C.F.R. § 228.102(c). The responsibility then shifts to BLM to determine, out of all forest land USFS made administratively available for leasing, which specific parcels BLM will designate for leasing. 36 C.F.R. § 228.102(d). Once BLM does so, it submits, for USFS's approval and consent, a proposal to lease specific parcels. Before consenting, USFS must verify that the leasing of those specific lands "has been adequately addressed in a NEPA document and is consistent with the Forest land and resource management plan." *Id.* § 228.102(e)(1). Additional environmental analysis must be performed if USFS determines that the leasing has not been adequately addressed or if significant new information or circumstances requires further analysis. *Id.* USFS also verifies that BLM's leasing proposal includes all required stipulations. *Id.* If these conditions are met, USFS may consent to BLM's leasing proposal. Finally, the process shifts back to BLM to offer the specific land for oil and gas leasing through a lease sale and awards leases to the "highest qualified bidder." 43 C.F.R. §§ 3924.5, 3925.10.

3. Approval of Drilling Operations on Leased Land

Before a lessee commences drilling operations or other surface-disturbing activities on leased land, the lessee must submit an application for permit to drill ("APD") for each planned well site on the parcel. 43 C.F.R. § 3126.3–1(c). The APD includes a surface use plan of operation ("SUPO") describing the proposed

drilling program and addressing environmental hazards caused by the drilling and efforts to mitigate those hazards. *Id.* § 3162.1–1(c), (d), (e). USFS reviews the SUPO for compliance with NEPA and its implementing regulations as well as USFS policies and procedures. 36 C.F.R. § 228.107(a). USFS may approve the SUPO as submitted, approve it subject to specified conditions, or disapprove it. *Id.* § 228.107(b)(2). USFS then gives public notice of its decision on the SUPO and forwards the decision to BLM. *Id.* § 228.107(c), (d). BLM may approve the APD only after USFS approves the SUPO included therein. 30 U. S.C. § 226(g); 43 C.F.R. § 3162.3–1(h). Finally, even after the APD is approved, the lessee must supplement the SUPO if it seeks to conduct additional surface-disturbing operations on a particular well site that were not previously accounted for in the plan. 36 C.F.R. § 228.106(d).

B. The Endangered Species Act

The Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531, *et seq.* also has bearing on what federal forest lands USFS and BLM may approve for oil and gas leasing. The ESA “is comprehensive legislation for the preservation of endangered species.” *Bosworth*, 284 F. Supp. 2d at 83–84 (citing *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978)). It requires the Secretary of the Interior, acting through the FWS to list the fish, wildlife, or plant species that it determines are endangered or threatened. *Id.* at 84; 16 U.S.C. § 1533(a).

The ESA comes into play whenever USFS determines to make forest lands administratively available for leasing and whenever BLM later designates

specific lands from all those administratively available that BLM plans to offer at a lease sale. The relevant agency (the “acting agency”) must ensure that its leasing decision “is not likely to jeopardize the continued existence of” a listed species or destroy or adversely modify a species’ critical habitat. 16 U.S.C. § 1536(a)(2).

If the acting agency concludes that its planned leasing may jeopardize a listed species or its critical habitat, then the acting agency must engage in formal consultation with FWS. 50 C.F.R. § 402.14(a). At the conclusion of the formal consultation, FWS issues a biological opinion in which FWS discusses in detail the effects of the proposed action on the listed species or critical habitats. *Id.* 402.14(g)–(h). If FWS concludes that the action will jeopardize the continued existence of a listed species or critical habitat, then “the biological opinion must set forth ‘reasonable and prudent alternatives’ aimed at avoiding such consequences.” *Bosworth*, 284 F. Supp. 2d at 84 (quoting 50 C.F.R. § 402.12(h)(3)).

If, on the other hand, the acting agency concludes that its leasing decision is unlikely to jeopardize a listed species or critical habitat, then it may engage in informal consultation with FWS to verify whether FWS concurs. 50 C.F.R. §§ 402.12(k), 402.13. If FWS agrees with the acting agency’s non-jeopardy determination, then no formal consultation is required, and “the consultation process is terminated” 50 C.F.R. §§ 402.12(b), 402.13(a).

Even after consultation terminates, however, whenever “new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered,” “[r]einitiation of formal consultation is required and shall be requested by the [acting] agency or by [FWS].” 50 C.F.R. § 402.16.

II. FACTUAL AND PROCEDURAL BACKGROUND

The following facts are taken from Plaintiffs’ Amended Complaint, ECF No. 24, and the Defendants’ administrative records.

A. The Wayne National Forest and the Marietta Unit

The Wayne National Forest (“WNF” or “the Forest”), located in the foothills of the Appalachian Mountains in southeast Ohio, is Ohio’s only national forest. Unlike other national forests, the Forest is a patchwork of private and federal land, with most of the land within its administrative boundary being privately owned. Nearly 240,000 of the Forest’s over 800,000 acres of land is owned and managed by USFS. Approximately 98,858 acres of that federal land are underlain by federally-owned minerals. FS-5534.

Three non-contiguous units—Athens, Ironton, and Marietta—comprise the Wayne National Forest. The Marietta Unit is the easternmost unit and the unit at issue here. It contains approximately 268,000 acres of private and federal lands, of which over three-fourths is privately owned.

B. USFS's 2006 EIS and Forest Plan

In 2006, after more than four years of planning and analysis, USFS approved a Final Revised Land and Resource Management Plan ("2006 Forest Plan" or "Plan"), which guides the management of the Wayne National Forest, and an accompanying EIS ("2006 EIS"). USFS relied on a 2004 Reasonably Foreseeable Development Scenario ("RFDS") created by BLM that projected the total surface disturbance of new oil and gas wells in Wayne National Forest to create the 2006 Forest Plan and EIS. Neither the 2006 Forest Plan, the EIS, or the 2004 RFDS considered effects of horizontal drilling and hydraulic fracturing methods, because those methods did not appear to be economically feasible at the time, rather, they only considered conventional vertical drilling.

Before finalizing its 2006 Forest Plan and 2006 EIS, USFS received substantial public input, as required by NEPA: it held public meetings, developed a draft plan and draft EIS, received feedback on those drafts through public open houses, and responded to over 1,300 public comments on the drafts. Additionally, USFS engaged in formal consultation with FWS. The consultation focused on the 2006 Forest Plan's effect on the endangered Indiana bat and running buffalo clover. USFS engaged in informal consultation on other species believed to be present in the area, but USFS and FWS concurred that the activities incorporated in the 2006 Forest Plan was not likely to adversely affect those species.

On November 22, 2005, at the end of the formal consultation, FWS issued a biological opinion in which it concluded that allowing surface occupancy for oil and gas leases was not likely to jeopardize the Indiana bat and running buffalo clover or critical habitats present in the Wayne National Forest. Specifically, FWS determined that USFS's no-surface-occupancy restriction on 13% of the WNF, incorporated into USFS's proposed 2006 Forest Plan and 2006 EIS, was sufficient to protect scenic, recreational, and wildlife areas and that the 2006 Forest Plan contained sufficiently protective standards and guidelines for the remaining development sites.

In the final 2006 EIS, USFS announced that it would continue to make "all federally owned oil and gas rights within the Forest . . . administratively available for oil and gas leasing," and that it would subsequently review and authorize BLM to lease specific lands within the Forest. The EIS allowed surface occupancy on only 13% of the Wayne National Forest, but on up to 96% of the federal land in the Marietta Unit.

C. Horizontal Drilling and Hydraulic Fracturing Overview

Beneath the Forest lies primarily Marcellus and Utica shale—a geological formation thousands of feet below ground that contains oil and gas in its porous rock. FS-3744; BLM-1387–88; 29003–04. When the 2006 Forest Plan and 2006 EIS were prepared, there were no economically viable methods of accessing the oil and gas in the shale. See BLM-1387. The combination of hydraulic fracturing

and horizontal drilling, however, made access and retrieval of oil and gas in the shale profitable.⁴ *Id.*

The horizontal drilling process involves first drilling down then drilling horizontally for lengths up to, and over, a mile. BLM-29005; FS-3853–54, 5180. After drilling, the shale formation is then stimulated by a process called hydraulic fracturing, colloquially known as “fracking,” which involves injecting millions of gallons of liquid at a high pressure, to release the oil and gas trapped in the shale rocks.⁵ BLM-29004; 29006; FS-4244; 5094. To aid in the recovery of oil and gas, “hydrofrac fluids are treated with proprietary chemicals to increase the viscosity to a gel-like consistency that enables the transport of a *proppant*, usually sand, into the fracture to keep it open after the pressure is released.” BLM-29006. Compared to a “typical hydrofrac fluid” that contains less than .5% by volume of chemical additives, the 3 million gallons of liquid needed for hydraulic fracturing results in “about 15,000 gallons of chemicals in the waste.” BLM-29006. Wastewater treatment of such fluid can be difficult and expensive given the sheer volume of liquid required, not to mention that the shale formation often contributes its own materials to the mixture such as: brines containing

⁴ Hydraulic fracturing is not a new technique and has been used “in conventional vertical wells in Ohio for many years.” FS-5544. The “new” innovation is the combination of the two methods.

⁵ The combination of the two methods generally produces approximately 4 million cubic feet of gas per day. BLM- 29005. Meanwhile, the estimates for vertical wells considered in the 2006 EIS were much less. See FS-9565 (“[M]ost wells within the WNF are classified as ‘stripper’ wells, which produce small volumes of oil, gas, or both with equally small volumes of brine as a waste product. The average stripper gas well in Ohio produces 7.4 Mcf [or thousands of cubic feet] per well each day[.]”).

sodium, chloride, bromide, arsenic, barium, other heavy metals, and radionuclides that would exceed drinking water standards. BLM-29007.

Although fracking is technically term for only half of the process at issue here, the Court will primarily refer to the combination of horizontal drilling and hydraulic fracturing as “fracking” for ease of reference.

D. Subsequent Information Bearing on the 2006 Forest Plan and 2006 EIS

In November 2011, public concern over fracking led USFS to request that BLM review and update the projections contained in its 2004 RFDS, on which the 2006 Forest Plan and 2006 EIS relied. BLM concluded that USFS’s 2006 Forest Plan and 2006 EIS did not require updating because current and anticipated surface disturbance, including that caused by fracking, fell below the 2006 forecast. After receiving this information from BLM, USFS conferred with FWS about whether to reinitiate ESA consultations, but both agencies agreed that further consultation was unnecessary.

In January 2012, USFS issued a Supplemental Information Report (“2012 SIR”), which determined that the environmental effects caused by horizontal drilling and fracking fell within the surface-disturbance limits analyzed in the 2006 EIS and accounted for in the 2006 Forest Plan. Consequently, USFS concluded that it was not required to conduct additional NEPA analysis on the effects of these oil and gas extraction methods.

E. Oil and Gas Leasing in the Marietta Unit

In accordance with the 2006 Forest Plan and 2006 EIS which made available all federally owned minerals in WNF for leasing, in 2015, BLM proposed to lease up to 40,000 acres of federally owned minerals on specific parcels of the Marietta Unit of the Wayne National Forest. BLM prepared an EA to analyze the effect of its leasing proposal. In April 2016, BLM issued its draft EA for public comment.

On June 15, 2016, USFS consented to BLM's lease sale of approximately 2,718.58 acres of federal land in the Marietta Unit.

In October 2016, BLM issued a final EA and Finding of No Significant Impact ("2016 FONSI") (thus concluding that no additional NEPA analysis was required) for its 40,000-acre leasing proposal.

The Center for Biological Diversity appealed that decision to the Interior Board of Land Appeals ("IBLA") but dismissed the appeal after IBLA denied its request for a stay of the decision. In December 2016, BLM offered approximately 719 acres, spread over 17 parcels, for sale, and in March 2017, BLM offered an additional 1,147.10 acres, spread over 20 parcels, for sale. All Plaintiffs in this action appealed both sale decisions to IBLA but subsequently withdrew the appeals after their requested stay was denied.

F. This Action

Plaintiffs instituted this action on May 5, 2017. In their Amended Complaint, Plaintiffs bring claims against USFS for (1) violating NEPA and the

APA by consenting to BLM's leasing proposals without conducting additional NEPA analysis (specifically, without preparing a supplemental EIS), and (2) violating the ESA for failing to consult or complete consultation with FWS prior to consenting to BLM's leasing proposals. They also bring claims against BLM for (1) violating NEPA by preparing an "unlawful" EA and FONSI instead of preparing an EIS prior to making its leasing decisions, and (2) violating the ESA for failing to consult or complete consultation with FWS prior to making its leasing decisions. Finally, Plaintiffs allege that USFS, BLM, and FWS violated the ESA by failing to reinitiate consultation regarding the conclusions reached in FWS's 2005 biological opinion, because new species were designated by FWS as threatened or endangered after USFS issued its 2006 Forest Plan and EIS.

Defendants lodged their administrative records with the Court, and the Court denied supplementation of said records. See Op. and Order, ECF No. 78. All parties now move for summary judgment on the administrative records.

III. STANDARD OF REVIEW

Because NEPA does not provide a private right of action, the Court reviews challenged agency action under the APA. *Utah Envtl. Cong. v. Russell*, 518 F.3d 817, 823 (10th Cir. 2008).

"Judicial review of NEPA compliance is limited in scope." *Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 658 (2009). The Court's role in reviewing the administrative record is to "ensure that the agency has adequately considered and disclosed the environmental impacts of its actions and that its

decision is not arbitrary or capricious.” *Ky. Riverkeeper, Inc.*, 714 F.3d at 407 (quoting *Balt. Gas & Elec. Co.*, 462 U.S. at 97–98).

An agency decision is arbitrary and capricious if:

the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Meister v. U.S. Dep’t of Agric., 623 F.3d 363, 371 (6th Cir. 2013) (internal citation omitted).

Put another way, “[t]he duty of a court reviewing agency action under the ‘arbitrary or capricious’ standard is to ascertain whether the agency examined the relevant data and articulated a rational connection between the facts found and the decision made.” *Citizens’ Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1176 (10th Cir. 2008) (internal citation and quotation marks omitted).

“When reviewing an agency’s factual determinations, the Court ‘ask[s] only whether the agency took a ‘hard look’ at information relevant to the decision.”

High Country Conservation Advocates v. United States Forest Serv., 333 F. Supp. 3d 1107, 1119 (D. Colo 2018).

IV. DISCUSSION

A. Whether BLM and USFS were permitted to defer analysis of fracking impacts until the APD stage

Plaintiffs argue that USFS and BLM should have taken a hard look at the impacts of fracking *prior to* issuing the leases in order to properly consider the

cumulative effects of fracking and assess all available alternatives. Defendants refute this and contend that Plaintiffs are trying to require the agencies to perform site-specific NEPA review despite their discretion to defer analysis of specific environmental impacts until later in the leasing process.⁶ Specifically, although Plaintiffs want Defendants to review the specific environmental impacts at the leasing stage, Defendants contend that it is entirely appropriate to defer analysis of “site-specific” environmental effects until the APD stage of the process. Defendants acknowledge, however, whether the Agencies can defer NEPA analysis until the APD stage is one of first impression for the Sixth Circuit. Defs.’ MSJ 2, ECF No. 92. Thus, the Court must analyze this question first, before addressing Plaintiffs substantive issues with the 2012 SIR and 2016 EA.

As touched upon earlier, BLM employs a three-step process for oil and gas leasing:

[Step 1] “At the earliest and broadest level of decision-making, the [BLM] develops land use plans--often referred to as resource management plans” *Pennaco Energy, Inc. v. U.S. Dep’t of Interior*, 377 F.3d 1147, 1151 (10th Cir. 2004); see also 43 U.S.C. § 1712(a).

[Step 2] Next, BLM issues a lease for the use of particular land.⁷

⁶ Defendants and Intervenor raise substantially similar arguments throughout their briefing, so the Court will address and refer to the combined arguments as Defendants’ arguments. The Court will only address Intervenor’s arguments that are separate and distinct from Defendants.

⁷ If the land is managed by USFS, it must authorize or consent to the leasing. See 36 C.F.R. § 228.102(e).

[Step 3] The lessee may then apply for a permit to drill, and BLM will decide whether to grant it. § 1712(e); *Pennaco Energy*, 377 F.3d at 1151-52, 43 C.F.R. §§ 1610.5-3, 3162.3-1(c).⁸

N.M. ex rel. Richardson v. BLM, 565 F.3d 683, 716 (10th Cir. 2009).

NEPA also permits an agency to “tier” reviews, in that an agency can incorporate by reference previous, and usually broader, NEPA reviews and focus more narrowly on a specific issue. See *San Juan Alliance v. Stiles*, 654 F.3d 1038, 1054 (10th Cir. 2011) (citing 40 C.F.R. § 1508.28).

Here, Defendants argue that the 2006 Forest Plan and 2006 EIS already performed an in-depth analysis of federal mineral availability and environmental impacts of leasing those minerals, and that the agencies relied on the 2006 EIS to conclude that fracking effects were sufficiently addressed in that NEPA analysis. Defs.’ MSJ 13, ECF No. 92. Thus, Defendants argue, any more extensive site-specific analysis of fracking impacts can be deferred until the APD phase, when it will be required to prepare another NEPA review. Defendants’ deferral argument is not a novel defense for Agency Defendants to invoke. It has been raised in various forms throughout oil and gas litigation. See e.g. *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983); *Pennaco Energy, Inc. v. U.S. Dep’t of Interior*, 377 F.3d 1147, 1151 (10th Cir. 2004); *Richardson*, 565 F.3d at 717–18 (finding no bright-line rule for when an agency can defer site-specific analysis to the APD stage); *WildEarth Guardians v. Zinke*, 368 F. Supp.

⁸ Similarly, if the land is managed by USFS, the lessee must submit a surface use plan of operations along with the APD. 30 U.S.C. § 226(g).

3d 41, 64–65 (D. D.C. 2019) (rejecting Defendants’ argument that it can defer certain environmental impact analyses until the APD stage). In particular, Defendants here rely heavily on the Tenth Circuit Court of Appeals’ decision in *Park County Resources Council, Inc. v. U.S. Department of Agriculture* to support their argument that agencies can defer analysis until the APD stage because “oil and gas lease, by itself, does not cause a change in the physical environment,” so until an agency knows the specific impacts contained in an APD, a NEPA review is not possible. 817 F.2d 609, 622–24 (1987).

Plaintiffs dispute that *Park County* controls and point to *Pennaco* to support their argument that the reasonably foreseeable impacts of leasing activities must be addressed at the decision-to-lease stage. 377 F.3d at 1160.

These parties are also not the first to argue, respectively, that *Park County* or *Pennaco* control on the deferral issue. Similar arguments were raised in *Richardson*, and the Tenth Circuit engaged in a detailed comparison of the *Pennaco* and *Park County* to determine when, and more importantly in what context, tiering applies. The Tenth Circuit explained that:

This court first addressed the tiering of impacts analysis in the oil and gas leasing context in *Park County Resource Council, Inc. v. U.S. Department of Agriculture*, 817 F.2d 609 (10th Cir. 1987), *overruled in part on other grounds by Village of Los Ranchos*, 956 F.2d 970. In that case, BLM had prepared an “extensive” EA before issuing leases, concluded that leasing would have no immediate environmental impacts, and issued a FONSI concluding that an EIS was unnecessary at that stage. *Id.* at 612. Reviewing the decision to issue a FONSI rather than an EIS, we noted that no exploratory drilling had occurred in the entire plan area at the time the lease was issued, *id.* at 613, and there was no evidence that full field development was

likely to occur, *id.* at 623. . . . We concluded that preparation of both plan-level and site-specific environmental impacts analysis was permissibly deferred until after leasing

We next had occasion to consider tiering in the oil and gas context in *Pennaco Energy*. In that case, BLM issued leases for coal bed methane (“CBM”) extraction on public lands in Wyoming. 377 F.3d at 1152. A plan-level EIS for the area failed to address the possibility of CBM development, and a later EIS was prepared only after the leasing stage, and thus “did not consider whether leases should have been issued in the first place.” *Id.* Because the issuance of leases gave lessees a right to surface use, the failure to analyze CBM development impacts before the leasing stage foreclosed NEPA analysis from affecting the agency's decision. *Id.* at 1160. Accordingly, we held that in the circumstances of that case, an EIS assessing the specific effects of coal bed methane was required before the leasing stage. As in *Park County*, the operative inquiry was simply whether all foreseeable impacts of leasing had been taken into account before leasing could proceed. Unlike in *Park County*, in *Pennaco Energy* the answer was “no.”

Richardson, 565 F.3d at 716–17.

Richardson also clarified that there was no “bright line rule that site-specific analysis may wait until the APD stage[;]” rather, “the operative inquiry was simply whether all foreseeable impacts of leasing had been taken into account before leasing could proceed.” *Id.* at 717.

Richardson instructs that the first question to ask when determining if an assessment can be deferred is whether the lease would constitute “an irretrievable commitment of resources.” *Id.* at 718 (finding that issuance of an oil and gas lease without an no surface occupancy (“NSO”) stipulation was an irretrievable commitment); see also *Connor v. Burford*, 836 F.2d 1521,1527 (9th Cir. 1988) (finding that “an EIS must be prepared before any irreversible and

irretrievable commitment of resources”); *Peterson*, 717 F.2d at 1414 (“The appropriate time for preparing an EIS is *prior* to a decision, when the decisionmaker retains a maximum range of options.” (citation omitted)).

Next, if the Court finds that the decision to lease would constitute an irretrievable commitment of resources, then the second question is whether any environmental impacts were reasonably foreseeable at the leasing stage.

1. Is the decision to lease an irretrievable and irrevocable commitment of resources?

As to first question, Defendants state that in this case, and unlike in *Pennaco*, USFS can approve, modify, or deny a surface use plan of operations or withdraw its consent to lease if it believes additional environmental analysis is warranted. Defs.’ MSJ 15, ECF No. 92 (citing 36 C.F.R. § 228.102(e)(1)). Defendants concede that the leases at issue are non-NSO leases⁹ but argue that

⁹ The 2006 Forest Plan EIS discussed NSO stipulations:

Under all alternatives, approximately 104,955 acres of federally owned minerals are currently available for oil and gas leasing subject to applicable restrictions, referred to as stipulations and notifications. The most restrictive stipulation addressed in the FEIS is the No Surface Occupancy (NSO) stipulation. NSO prohibits use or occupancy of the land surface for oil and gas exploration and development. Under Alternative E Modified, NSO applies to 17,260 of the available acres. Time limitation stipulations, controlled surface use stipulations and lease notifications apply to the remaining 87,695 acres.

The 2006 Forest Plan stipulates no surface occupancy on 13% of the Forest, compared to the 1988 Plan, which prohibits surface occupancy on 12% of the Forest. I have selected the alternative that will allow surface occupancy on 96% of the Marietta Unit, which is the area of the Forest that has the highest potential for continued oil and gas development. The 1988 Plan allowed surface occupancy on 82% of the Marietta Unit.

those are not an irretrievable commitment of resources because the lessee must still submit an APD and surface use plan of operations (“SUPO”) are before it can use the surface. Defs.’ Reply 5, ECF Nol. 107. Thus, they argue that there is no “significant impact” yet to the environment.

But Defendants fail to reassure the Court that the decision to lease in this case is not an irretrievable commitment of resources. Defendants provide no evidence that, if a site-specific NEPA review at the APD phase indicated more serious environmental impacts than initially expected, they could *revoke* altogether a lessee’s right to the minerals or prohibit any disturbance or use of the land.

Similarly, the Court is not convinced by Defendants’ argument that the significance of an action does not occur and cannot be determined until there are actual physical impacts. Defendants argue that “the act of leasing does not have any ground-disturbing effects,” and thus, no actual environmental impacts. Defs.’ MSJ 14, ECF No. 92. Rather, they argue that only once the lessee submits an APD and a SUPO are BLM and USFS required to conduct site-specific reviews, because only then will the leases cause a change to the physical environment. *Id.* (citing BLM-1515, 1521; FS-5536). But the problem with Defendants’ argument is that the regulatory language does not ask the agencies to review whether any surface disturbance will occur by its action; rather, the agencies are

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tasked with determining whether the proposed action will have “any irreversible and irretrievable commitments of resources[.]” 42 U.S.C. § 4332(C)(v). As such, the lack of immediate physical disturbance cannot equate to “no irretrievable commitments of resources.”

Under similar circumstances, other courts have found that an irreversible and irretrievable commitment of resources occurs at the decision-to-lease stage. *See S. Utah Wilderness All. v. Palma*, 707 F.3d 1143, 1159 (10th Cir. 2013) (“issuance of the [mineral] lease represents the irreversible and irretrievable commitment of public resources for private use.”); *Richardson*, 565 F.3d at 718 (“issuing an oil and gas lease without an NSO stipulation constitutes such a commitment.”); *Pit River Tribe v. United States Forest Serv.*, 469 F.3d 768, 782–83 (9th Cir. 2006) (finding that leases that did not allow the government to preclude oil and gas activities all together were an irretrievable commitment of resources); *Conner*, 848 F.2d at 1451 (“In sum, the sale of a non-NSO oil or gas lease constitutes the ‘point of commitment[.]’ [A]fter the lease is sold the government no longer has the ability to prohibit potentially significant inroads on the environment [thus], unless surface-disturbing activities may be absolutely precluded, the government must complete an EIS before it makes an irretrievable commitment of resources by selling non-NSO leases.”); and *Peterson*, 717 F.2d at 1413 (finding that once land was leased without NSO stipulations, “the Department no longer has the authority to *preclude* surface disturbing activities even if the environmental impact of such activity is

significant” and that once that decision is made at the leasing stage, it “is the point at which the environmental impacts of such activities must be evaluated.”).¹⁰

In sum, the Court finds an important distinction exists between the ability to restrict or limit an action and the ability to prohibit or revoke an action altogether. *C.f. Peterson*, 717 F.2d at 1415 (An agency “may delay preparation of an EIS provided that it reserves both the authority to *preclude* all activities pending submission of site-specific proposals and the authority to *prevent* proposed activities if the environmental consequences are unacceptable.”). Indeed, after a lessee obtains rights to the minerals, it has “the right to use so much of the lease lands as necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource in a leasehold.” 43 C.F.R. § 3101.1-2. Thus, revocation or denial of the project after a lease is issued would impede on the lessee’s rights as a leaseholder. *See Pit River*, 469 F.3d at 783. But waiting to evaluate the environmental impacts of a decision until after the “no action alternative” is off the table would circumvent the very purposes of NEPA, which is “insuring that federal agencies infuse in project planning a thorough consideration of environmental values” including “to consider seriously the ‘no action’ alternative

¹⁰ Given that both *Palma* and *New Mexico*, decided in 2013 and 2009 respectively, explicitly state that non-NSO leases equate to an irretrievable commitment of resources, the Court rejects Defendants’ argument that Plaintiffs’ incorrectly rely on cases predating the Federal Onshore Oil and Gas Leasing Reform Act of 1987, 30 U.S.C. § 226(g), such as *Peterson* or *Conner*, for the same proposition. *See* Defs.’ Reply 6–7, ECF No. 107.

before approving a project with significant environmental effects.” *Conner*, 848 F.2d at 1451.

Moreover, the regulations support NEPA review at the leasing stage. For example, 36 C.F.R. § 228.102(e)(1) states that: “at such time as specific lands are *being considered for leasing*,” USFS shall review the decision, including verifying that the leasing of specific lands has been adequately addressed in the NEPA document. 36 C.F.R. § 228.102(e) and (e)(1) (emphasis added). But if USFS finds that “NEPA has not been adequately addressed, or if there is significant new information or circumstances as defined by 40 CFR 1502.9 requiring further environmental analysis, additional environment analysis shall be done before a leasing decision for specific lands will be made. [Likewise] [i]f there is inconsistency with the Forest land and resource management plan, no authorization for leasing shall be given unless the plan is amended or revised.” 26 C.F.R. § 228.102(e)(1). Nowhere does this regulation hold that USFS can withdraw consent at the APD stage, and Defendants do not contend otherwise. Further, all parties agree that USFS can only withdraw its consent to lease at the decision-to-lease step. Thus, this regulation supports Plaintiffs’ proposition that the appropriate time to consider the environmental impacts of the decision is prior to the APD step when there is an irretrievable commitment of resources.

Accordingly, the Court finds that BLM’s decision to lease, and USFS’s consent thereto, *are* decisions to irrevocably commit resources, because only the

manner and method of accessing those committed resources can be regulated at the APD stage.

2. Were the impacts of fracking reasonably foreseeable?

Next, the Court must determine whether the impacts of fracking were reasonably foreseeable. The Court will address specific, potentially foreseeable impacts in subsequent sections of this opinion, but finds the impacts of fracking were reasonably foreseeable at the time such that USFS and BLM had the ability to examine them at the leasing stage.

“In determining what effects are ‘reasonably foreseeable, an agency must engage in ‘reasonable forecasting and speculation,’ with *reasonable* being the operative word. . . . [t]he agency need not foresee the unforeseeable, but by the same token neither can it avoid drafting an impact statement simply because describing the environmental effects of and alternatives to particular agency action involves some degree of forecasting.” *WildEarth*, 368 F. Supp. 3d at 67 (citations and quotations omitted). “An effect is considered reasonably foreseeable if it is ‘sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.’” *Wilderness Workshop v. United States BLM*, 342 F. Supp. 3d 1145, 1155 (D. Colo 2018) (citation omitted).

The Court first notes that the parties talk past each other as to the scope of review that Plaintiffs’ seek. Defendants characterize Plaintiffs’ argument as requiring the Agencies to “examine all site-specific impacts at the leasing or

Forest Plan stage.” Defs.’ MSJ 13,15, ECF No. 92. Defendants use “site-specific” to refer to more granular, individual parcels for lease. Plaintiffs contend Defendants mischaracterize their argument because they are not seeking parcel-specific review. Instead, they argue the crux of their argument is that Defendants “*underestimated or entirely ignored specific foreseeable and aggregate forest-wide consequences*” of fracking. Pls.’ Reply 1, ECF No. 105.

To the extent Plaintiffs are requesting the Court require parcel-by-parcel environmental impact assessments at the leasing stage, the Court agrees with Defendants that such a review is not required at the leasing stage. See *WildEarth*, 368 F. Supp. 3d at 66–67 (collecting cases for that proposition). However, this does not absolve Defendants from examining reasonably foreseeable environmental impacts of leasing the aggregate of parcels at issue, in this case approximately 40,000 acres.

Here, the Court finds the environmental impacts of leasing the land for fracking, as a whole, were reasonably foreseeable. Notably, Defendants *did* foresee some impacts and were able to extrapolate from them. See e.g. FS-5641 (May 2012 letter from BLM to USFS comparing vertical and horizontal drilling).¹¹ In particular, BLM estimated the number of wells per well pad reasonably expected with fracking, as well as how many well-pads each Unit could accommodate. FS-5641–43. Moreover, USFS and BLM were aware of

¹¹ The Court will address the substance of these conclusions later in the Opinion and Order.

other forests reviewing the impacts of fracking, in which USFS projected pipeline disturbances from horizontal well development. See FS-9–20; FS-48–49.

Likewise, Ohio’s Department of Natural Resources (“ODNR”) issued its recommendations for oil and gas activities on state lands in January 2012, which specifically discussed estimated sizes for well pads, FS-2656, and water storage (estimating that fracking requires 2-6 million gallons water, stored close to the well-site and requires “substantial resources” and noting that “one million gallons of water is equivalent to 3.069 acre feet or 133,685.24 cubic feet”).

Similarly, given that substantial oil and gas development had already occurred on private, adjacent lands in the WNF, the likelihood that these federal lands would be developed for fracking was reasonably foreseeable. See BLM-1388–89 (“ODNR reported that 15,707,339 barrels of oil and 651,193,106 million cubic feet of gas were produced from Ohio’s horizontal shale wells in the first nine months of 2015”); see *also* FS-3815, 26–29; FS-3833 (noting possible productive shale areas could be up to 10,000,000 acres; 200 shale wells estimated drilled in 2012; also estimating 6 acres per well pad and access road for a total of 20,772 acres for access roads and well pads). This information also distinguishes Defendants’ primary case, *Park County*, where the proposed action was much more speculative. See *also* FONSI, BLM-1755 (noting that there were over 50 “expressions of interest” in leasing federal minerals on approximately 18,000 acres in the Marietta Unit).

Defendants argue that “the reasonably foreseeable impacts can only be meaningfully examined when there is a concrete site-specific proposal in the form of a submitted APD.” Defs.’ Reply 5, ECF No. 107. But this argument is unpersuasive. See *Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1072 (9th Cir. 2002) (“An agency may not avoid an obligation to analyze in an EIS environmental consequences that foreseeably arise from an RMP merely by saying that the consequences are unclear or will be analyzed later when an [Environmental Assessment] is prepared for a site-specific program proposed pursuant to the RMP . . . NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment.”). But Defendants’ argument that any environmental impacts will be considered at the APD stage is not particularly reassuring given that USFS and BLM will compare the APD and SUPO against the current 2006 Forest Plan, in which fracking was not even considered. And, more importantly, at the APD stage, the “No Action Alternative” is no longer on the table with respect to the non-NSO leases. Finally, by finding that the Agencies *can be* required to conduct a NEPA analysis at the leasing stage—if there is an irrevocable commitment of resources and reasonably foreseeable environmental impacts—does *not* mean that Defendants will be required to create an EIS at every decision to lease. See *Ctr. for Biological Diversity v. United States BLM*, No. 3:17-CV-553, 2019 U.S. Dist. LEXIS 137955, at *6 (D. Nev. Aug. 15, 2019) (finding that “NEPA does not require BLM to create an EIS whenever it issues non-NSO oil and gas leases. It only requires that BLM

assess all reasonably foreseeable impacts of issuing such leases prior to issuing those leases because once those leases are issued, BLM no longer has the authority to preclude all surface disturbing activity.”); *see also WildEarth*, 368 F. Supp. at 53 (“At the leasing stage an EIS may be required, but is not mandated by regulation.”). Thus, Defendants’ concern over the cost of potentially completing multiple EIS iterations is diminished.

In sum, the Court finds that the examples from the record about specific impacts, either already experienced in Ohio on state or private lands, or known to USFS and BLM from other forest plans in the area, demonstrate that both the impacts of fracking on federal lands, and the likelihood of it actually occurring, were reasonably foreseeable. *See Richardson*, 565 F.3d at 718 (finding it reasonably foreseeable when “[c]onsiderable exploration ha[d] already occurred on parcels adjacent to the [parcel at issue], and a natural gas supply [was] known to exist beneath these parcels.”). Defendants’ decision not to conduct further review, in large part, was based on the assumption that there was no significant impact at the leasing stage because no surface disturbing activities in furtherance of fracking would occur. *See* Defs.’ MSJ 14, ECF No. 92. But this Court joins other courts in finding that this conclusion “fell short of NEPA’s requirements with respect to leases lacking NSO stipulations. . . . because at the leasing stage ‘the [agency] made an irrevocable commitment to allow *some* surface-disturbing activities,’ and it was therefore required to analyze those

activities before it could no longer preclude them.” *WildEarth*, 368 F. Supp. 3d at 65 (referencing *Peterson, Conner, and Richardson*).

B. USFS’s and BLM’s “hard look” at forest clearing activities

Having concluded that Defendants were required to perform a NEPA analysis at the leasing stage, the Court considers whether, in this case, Defendants took the requisite “hard look” at the impacts of fracking, and whether their decision to not engage in further NEPA analysis was arbitrary and capricious. Plaintiffs first argue that Defendants did not adequately consider the surface area disturbance impacts that fracking would have in the WNF.

1. NEPA Framework

As mentioned above, an agency must prepare an EIS whenever it endeavors to take “major . . . action[] significantly affecting the quality of the human environment,” 42 U.S.C. § 4332(C), which this Court finds could include opening up of federal lands for oil and gas leasing. Here, the Agencies complied with that initial requirement at step one of the oil and gas leasing process by preparing the 2006 Forest Plan and 2006 Forest Plan EIS which addressed oil and gas leasing in WNF. The 2006 Forest Plan and EIS decided to make available all federal minerals for oil and gas leasing. See Record of Decision, FS-10361.

Although an EIS does not stay relevant forever, a reviewing court must also be mindful that preparing an EIS is a time consuming and expensive process. That is why an agency can first prepare an EA to determine if it needs

to prepare an EIS. See 40 C.F.R. § 1501.4(a)–(c). An EA, also a NEPA document, is “a concise public document . . . that serves to . . . [b]riefly provide sufficient evidence and analysis for determining” the effect of the proposed action on the environment and “whether to prepare an [EIS]” 40 C.F.R. § 1508.9(a). It includes some of the same content as an EIS—such as a “discussion[] of the need for the proposal, of alternatives . . . [and] of the environmental impacts of the proposed action and alternatives”—but does not require the same depth of analysis as an EIS. *Id.* § 1508.9(b); see *Anglers of the Au Sable v. U.S. Forest Serv.*, 565 F. Supp. 2d 812, 824 (E.D. Mich. 2008) (“An EA is a concise document that allows agencies to consider the environmental concerns associated with a proposed project while conserving agency resources for those projects in which a full EIS is required.”).

But, “[a]lthough the discussion may be ‘brief,’ the Court must still determine whether an EA took a ‘hard look’ at the environmental consequences of the proposed action.” *Mont. Wilderness Ass’n v. Fry*, 310 F. Supp. 2d 1127, 1144 (D. Mont. 2004) (internal citation omitted). If the agency concludes in the EA that no EIS is required, it issues a FONSI summarizing its reasons. 40 C.F.R. §§ 1501.4(e), 1508.13. Conversely, “[i]f the EA establishe[s] that the agency’s action ‘may have a significant effect upon the . . . environment, an EIS must be prepared.’” *Fry*, 310 F. Supp. 2d at 1144 (quoting *Found. for N. Am. Wild Sheep v. United States Dep’t of Agric.*, 681 F.2d 1172, 1178 (9th Cir 1982)).

Reviewing courts employ a “rule of reason” to determine whether an agency took the required “hard look” at environmental impacts. *See Friends of the Capital Crescent Trail v. Fed. Transit Admin.*, 877 F.3d 1051, 1058 (D.C. Cir. 2017) (“Consistent with a ‘rule of reason,’ an agency need not supplement an EIS every time new information comes to light after the EIS is finalized; rather, the need for supplementation ‘turns on the value of the new information to the still pending decisionmaking process.’” (quoting *Marsh v. Oregon Nat’l Res. Council*, 490 U.S. 360, 374 (1989))). The “hard look” requirement applies to EAs as well as EISs. *WildEarth*, 368 F. Supp. 3d at 53.

Whether the agency employed a reasoned-decision-making process is key. “NEPA does not require that an agency discuss every impact in great detail; it simply requires a reasoned evaluation of the relevant factors.” *Forest Guardians v. United States Forest Serv.*, 495 F.3d 1162, 1172 (10th Cir. 2007). And, although agency decisions are entitled to deference, and “an agency must have discretion to rely on the reasonable opinions of its own qualified experts,” when reviewing a decision not to supplement an EIS, “courts should not automatically defer to the agency . . . without carefully reviewing the record and satisfying themselves that the agency has made a reasoned decision based on its evaluation of the significance—or lack of significance—of the new information.” *Friends of the Capital Crescent Trail*, 877 F.3d at 1059 (quoting, in part, *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971)).

2. Relevant documents at issue

In 2006, USFS prepared and finalized an EIS and Forest Plan for WNF. FS-5528. The 2006 Forest Plan “made all federally-owned minerals administratively available to be leased . . . based on projections for oil and gas activity finding that fracking was ‘still not yet economically feasible’[.]” 2012 SIR, FS-5528 (citing Record of Decision, p. 14 and EIS, Appendix G). Thus, in USFS’s own words, the 2006 decision to make all federal minerals available for leasing did not consider the environmental impacts of fracking.

The RFDS contained in the 2006 EIS projected that a total of 272 acres in the Athens, Marietta, and Ironton Units would be disturbed by conventional oil and gas drilling activity before reclamation, 135 acres of which would be in the Marietta Unit. FS-10244. The types of surface disturbances considered from conventional oil and gas activities in the 2006 RFDS for each Unit included: access roads, road construction, well pad construction, and turnaround/production facility activities to service the wells. See Appendix G to 2006 EIS, FS10255, FS10257, FS10259.

In 2012, USFS asked BLM to review the continued viability of the 2006 RFDS, after the public raised concerns about the effects of fracking on the WNF. FS-5641. BLM concluded in a three-page letter, dated May 3, 2012 (“May 2012 Letter”), that the estimated surface disturbances projected for oil and gas activities would not change with the introduction of fracking to WNF because total surface disturbance would still be “well within the levels forecast in the 2006

RFDS.” FS-5643. Specifically, BLM reiterated that the 2006 RFDS projected a total surface area disturbance of 272 acres in the entire WNF for conventional, vertical drilling. For horizontal drilling, BLM estimated that the Marietta Unit could have up to ten horizontal drilling sites, the Athens Unit up to three, and the Ironton Unit none. FS-5641–42. It further estimated that each well pad site would require approximately 3–5.5 acres. Table 2, FS-5642.¹² The May 2012 letter further noted that the only significant differences between vertical and horizontal drilling were the size of each well pad and the volume of water used by each method. FS-5642. BLM acknowledged that the horizontal well pads would be larger than vertical well pads but reasoned that because “up to 8 wells can be drilled off of a single pad [fracking] actually reduces the level of surface disturbance associated with well pads, roads and pipelines.” FS-5642. BLM found it “difficult to estimate road and pipeline acreages” but nevertheless found that “it is reasonable to assume that fewer well pads would result in less road and pipeline disturbance.” FS-5642. BLM concluded that:

while a change in technology has now made horizontal drilling in portions of the WNF economically viable, the level of on-the-ground activity that has occurred and is yet anticipated, including any horizontal drilling operations, is still well within the levels forecast in the 2006 RFDS. Therefore, the 2006 RFDS is still applicable and does not need to be revised.

¹² Extrapolating from those to estimations, the maximum estimated surface area disturbance from horizontal well pad sites would be 71.5 acres (13x5.5).

FS-5643. The May 2012 Letter is devoid of citations or references to support any of its reasoning or conclusions.

The 2012 SIR was prepared specifically to address public concerns over fracking. See FS-5530–32. USFS’s 2012 SIR relied almost exclusively on that May 2012 Letter to find the 2006 RFDS’s projections for total surface area disturbance for conventional drilling was unchanged by the addition of fracking. In the 2012 SIR, USFS compared vertical and horizontal well pad sites by acreage, (Table 8), and remaining affected road acreage, (Table 9). FS5577–78. It viewed the 272-acre estimate as a “upper limits of projected outputs” for the Forest Plan. FS5577. The 2012 SIR concluded, it appears based only on the 2006 EIS Appendix G’s RFDS and BLM’s May 2012 letter, that “[t]otal surface disturbance acres of anticipated activity will not increase above those acres described within Appendix G.” FS5578.

Finally, BLM’s 2016 EA explained that the surface disturbance estimation of 135 acres for the Marietta Unit encompassed “all acreage potentially affected by oil and gas activities, including road construction, well pad construction, construction of turnaround/production facility areas, pipelines, and other related activities.” BLM-1355. It went on to summarize its findings for horizontal wells, noting that “the surface disturbance projected for 10 horizontal well pads is approximately 55 acres, substantially less than [the total surface area disturbance that] was initially projected under the 2006 RFDS.” BLM-1355.

Thereafter, BLM issued its 2016 FONSI, concluding that:

First, the amount of surface disturbance projected on the WNF with the use of high-volume, horizontal fracturing technology is within the amount of surface disturbance analyzed in the 2006 Forest Plan Final EIS. Second, the regulations enforced by the BLM and Ohio Department of Natural Resources (ODNR) and measures prescribed by the 2006 Forest Plan reduce impacts from land clearing and other activities that may impact wildlife habitat and populations. Post-lease actions/authorizations (e.g. APDs, rights of way), could be encumbered by further restrictions on a case-by-case basis, as required through project-specific NEPA analysis or other environmental review. The use of BMPs, SOPs, and lease stipulations, as well as potential conditions of approval at the APD stage, would lessen the potential for significant cumulative effects.

2016 FONSI, BLM-1758.

In other words, BLM concluded that the advent of fracking in WNF was not a significant impact and did not require preparation of an EIS because the 2006 Forest Plan sufficiently accounted for oil and gas activities generally, and the fracking impacts did not exceed the projected surface disturbance in the WNF.

3. USFS failed to take a “hard look” at surface disturbing activities

Plaintiffs contend that USFS’s conclusion in its 2012 SIR that the 2006 Forest Plan and EIS adequately addressed the impacts of fracking was arbitrary and capricious because it did not analyze or consider the full scope of forest clearing activities, including construction of pipelines, water impoundments, and staging areas. Pls’ MSJ 18, ECF No. 83.

“When new information comes to light the agency must consider it, evaluate it, and make a reasoned determination whether it is of such significance as to require [an SEIS].” *Friends of the Clearwater v. Dombek*, 222 F.3d 552,

558 (9th Cir. 2000). One mechanism by which agencies determine whether additional NEPA analysis is required is through SIRs. SIRs are not expressly provided for by NEPA and are not mentioned in the Counsel on Environmental Quality's ("CEQ") regulations implementing NEPA. *See Idaho Sporting Cong., Inc. v. Alexander*, 222 F.3d 562, 566 (9th Cir. 2000). But, "courts have upheld agency use of SIRs and similar procedures for the purposes of determining whether new information or changed circumstances required the preparation of a supplemental EA or EIS." *Id.* However, if an agency determines that an action or new information is significant, a SIR does not suffice—an SEIS must be prepared. *Id.*

Plaintiffs point to USFS employee statements indicating that USFS's decision to not prepare a supplement EIS could be different if the total surface disturbance acreage was greater than what was considered in the 2006 Forest Plan and 2006 EIS. See 2012 SIR, FS-5591 (noting that fracking might "create effects that are not covered under the current [2006] Forest Plan and associated planning documents . . . if the total acreage likely to be impacted is greater than what was analyzed (i.e. cumulative effects) [or] . . . if the activities have effects that are markedly different than what was considered during the Forest Plan development."); see also Letter from Anne Carey, Forest Supervisor, FS-5725 (finding that based on BLM's estimates and the actual disturbances to-date accounting for less than half of the projected acreage under the 2006 Forest Plan, concludes that "[i]t is unlikely that, for the foreseeable future, drilling

disturbance will exceed the acreage envisioned in the existing analysis. This is important, since the biological documents for the Forest Plan . . . considered the effects of oil and gas activities on wildlife and plant resources up to the projected acres.”).

Plaintiffs further argue that, contrary to the assumption that the total surface area will not exceed the limits in the 2006 Forest Plan and 2006 EIS, there is record evidence which contradicts that conclusion. For example, Plaintiffs point out that Defendants were aware that horizontal drilling required larger gathering pipelines in 2012 because at the same time USFS was preparing its 2012 SIR for WNF, it was also reviewing projected pipeline disturbances from horizontal well development for other forests, which did provide estimates for pipeline and access road disturbances. Pls.’ MSJ 22, ECF No. 83; citing FS-9 (projecting 13.5 acres of forest clearing in Monogahela “for access roads and pipelines” for each horizontal well cite) and FS-48–49 (projecting an estimated 12.34 acres of pipeline-related disturbance per producing well pad in 2011 for Virginia’s George Washington National Forest). BLM and USFS also acknowledge that fracking requires exponentially greater quantities of water than conventional vertical drilling, yet they failed to consider or explain why the increased surface disturbance caused by water impoundments and staging areas potentially associated with a higher water usage would not exceed the 2006 Forest Plan EIS projections for total surface area disturbance.

See Pls.' Mot. 22, ECF No. 83 (citing FS-5531); *see a/so* Table 2, BLM May 2012 Letter, FS-5642 (comparing water usage between vertical and horizontal drilling).

Likewise, the record indicates that USFS was aware in January 2012 of ODNR's specific surface area disturbance projections for fracking activities in the surrounding areas. ODNR issued recommendations for horizontal drilling on state lands, which specifically discussed estimated sizes for well pads, FS-2656 (estimating 3.5–7 acres per well pad, with up to 12 individual wells, and an estimated drainage area of more than 640 acres), and water storage. FS-2659 (estimating that fracking requires 2-6 million gallons water, stored close to the well-site and requires "substantial resources"; noting that "one million gallons of water is equivalent to 3.069 acre feet or 133,685.24 cubic feet"; which results in "the means and location of water storage ha[ving] a significant impact on the amount of land utilized for oil and/or gas development."); *see a/so* BLM-1388–89 ("ODNR reported that 15,707,339 barrels of oil and 651,193,106 million cubic feet of gas were produced from Ohio's horizontal shale wells in the first nine months of 2015;" noting that at that time there were "493 active federal wells" in the WNF); *see a/so* FS-3815, 26–29; FS-3833 (noting possible productive shale areas could be up to 10,000,000 acres; 200 shale wells estimated drilled in 2012; also estimating 6 acres per well pad and access road for a total of 20,772 acres for access roads and well pads).

Finally, even assuming that the total surface area will not exceed the total estimated surface area disturbance projected in the 2006 RFDC, USFS cannot

simply say that the 2006 Forest Plan EIS and 2004 RFDS covered all oil and gas activities, without grappling with the different impacts potentially posed by fracking. See *Los Padres ForestWatch v. United States BLM*, No. CV-15-4378, 2016 U.S. Dist. LEXIS 138782, at **34–35 (C.D. Cal. Sept. 6, 2016) (“Defendants argue that its analysis of the environmental impact of fracking is subsumed under its analysis of the impact of *all* oil and gas development. . . . [b]ut a “hard look” at the environmental impacts of fracking necessarily requires the Bureau to address the unique risks and concerns associated with fracking. . . . [which] involves risks and concerns that were not addressed by the PRMP/FEIS’ general analysis of oil and drilling development in the area.” (internal citations omitted)); cf. *Richardson*, 565 F.3d at 705–76 (rejecting agency’s argument that any impacts or changes to surface area disturbance would only differ in degree, not kind, so no further analysis was necessary).

Here, the record reflects that USFS had information at its disposal in 2012 to review when determining the surface area disturbances posed by fracking. But instead of doing so, it relied primarily on BLM’s May 2012 Letter, which lacked support for its conclusions. Thus, the Court finds that USFS did not engage in reasoned analysis because it did not consider all reasonably foreseeable impacts of fracking, despite having information available to them for consideration, and acknowledging that an increase in total surface area disturbance could require an EIS.

4. BLM failed to take a “hard look” at surface disturbing activities

Similarly, Plaintiffs argue that BLM failed to take the requisite “hard look” at the impacts of fracking when it prepared its 2016 EA and issued a FONSI.

An agency can prepare an EA “if the agency’s proposed action neither is categorically excluded from the requirement to produce an EIS nor would clearly require the production of an EIS. See [40 C.F.R. §] 1501.4(a)-(b). The EA is to be a ‘concise public document’ that ‘[b]riefly provide[s] sufficient evidence and analysis for determining whether to prepare an [EIS].’ § 1508.9(a).” *Dep’t of Transp. v. Public Citizen*, 541 U.S. 752, 757–78 (2004).

Just as is required for an EIS, “the EA must take a ‘hard look’ at the environmental consequences of the proposed action . . . including its direct, indirect, and cumulative effects.” *WildEarth Guardians*, 368 F. Supp. 3d at 53 (internal citations omitted). An EA’s analysis is insufficient “if it includes ‘virtually no references to any material in support of or in opposition to its conclusions.’” Conclusions drawn in an EA ‘must be supported by some quantified or detailed information, and the underlying environmental data relied upon to support the expert conclusions must be made available to the public’ to allow for informed public comment on the project.” *Friends of Congaree Swamp v. FHA*, No. 3:06-cv-02538, 2008 U.S. Dist. LEXIS 77563, at **9–10 (D. S.C. Sept. 30, 2008) (internal citations omitted).

“[A]n agency’s decision to issue a FONSI and not prepare an EIS . . . is a factual determination which implicates agency expertise.” *Biodiversity*

Conservation Alliance v. U.S. Forest Serv., 765 F.3d 1264, 1267 (10th Cir. 2014).

But, [i]n order for a factual determination to survive review under the arbitrary and capricious standard, an agency must ‘examine[] the relevant data and articulate[] a rational connection between the facts found and the decision made.’”

Richardson, 565 F.3d at 713 (quoting *Citizens’ Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1176 (10th Cir. 2008)).

Again, Defendants rely heavily on the fact that CEQ regulations allow for them to “tier” reviews, meaning in the sort of multi-stage process at play here, an agency can incorporate previous analyses if the prior, broader EIS fully analyzed the issue later under review. 40 C.F.R. §§ 1502.20; 1508.28. “[H]owever, ‘[t]o the extent that any relevant analysis in the broader [earlier] NEPA document is not sufficiently comprehensive or adequate to support further decisions, the tier[ed] NEPA document must explain this and provide any necessary analysis.’” *Id.* (quoting 40 C.F.R. § 46.140(b)).

In this case BLM’s 2016 EA relies heavily on the 2012 SIR’s determinations that fracking would not exceed the estimated 135 acres of surface disturbance in the Marietta Unit, which in turn is based only on BLM’s May 2012 Letter that lacks any “quantified or detailed information” underlying its conclusions.

Indeed, BLM’s 2016 EA analysis of whether the 2006 RFDS was still applicable, even with the change of fracking, almost entirely relies on USFS’s 2012 SIR:

For the Marietta unit, the 2006 RFDS projected up to 110 vertical well pads (2006 Forest Plan EIS, p. G-1), and the 2012 SIR projected 10 horizontal well pads (SIR, p. 3). The 2012 SIR was issued because horizontal wells were becoming more of the standard approach to mineral development on private surface in the area. The surface disturbance projected for 10 horizontal well pads is approximately 55 acres, substantially less than what was initially projected under the 2006 RFDS. As shown in Table 2-1, approximately 10 acres have already been disturbed from oil and gas development in the Marietta Unit; therefore, the remaining acreage of surface disturbance that could occur within the Marietta Unit that is analyzed in this EA, is approximately 70 acres. Of those 70 acres, approximately 40 acres of disturbance would persist for the long term, until final reclamation is completed. This disturbance is still well within the projected disturbance of the RFDS from the 2006 Forest Plan EIS.

2016 EA, BLM-1355. The EA then estimates that approximately two acres will be affected by road construction, and notes that, if the wells are productive, “additional land may be affected by pipeline construction.” BLM-1356–57.

From this, Defendants argue that “the records show that the impacts from horizontal drilling are within the scope of the earlier analyses.” Def. MSJ 16, ECF No. 92. They also acknowledge that horizontal well pads are larger than vertical well pads but reiterate that overall, because each horizontal well pad site can contain up to eight wells, it reduces the number of overall well pads sites required.

Plaintiffs argue that the 2016 EA improperly limited its calculation of foreseeable fracking disturbances to just well pads and access roads, thereby failing to acknowledge the full scope of foreseeable surface disturbing activities.

For example, Plaintiffs cite to Table 2.1 in BLM's 2016 EA, which states that according to the 2006 RFDS, the total initial acres of surface area in the

Marietta Unit likely to be disturbed by oil and gas drilling before reclamation to be 135 acres. BLM-1355. It then arrives at a “net surface disturbance below 2006 RFDS” of 70 acres by adding together the 2012 SIR projected disturbance from horizontal well pads only (55 acres) and acres disturbed to-date from oil and gas activities (10 acres) and subtracting that total (65 acres) from the 135 acres. See Table 2.1, BLM-1355.

Table 2.1. Potential Disturbance in the Marietta Unit Projected by the RFDS

	2006 RFDS projection of acres disturbed	2012 SIR forecast of acres disturbed by horizontal wells	Acres disturbed to date from oil and gas development	Net surface disturbance below 2006 RFDS
Total initial acres of surface disturbed by oil and gas drilling before reclamation	135	55	10	70 $(135-65) = 70$
Total acres of surface needed to support long term production (i.e. remaining	59	13.8	5	40.2 $(59-18.8) = 40.2$

BLM-1355.¹³

The problem is that the 55 acre-projection for horizontal wells encompasses *only* surface disturbance from horizontal well pads, whereas the 2006 RFDS’s 135-acre estimation included *all* acreage potentially affected by oil and gas development caused by vertical drilling. BLM-1355. As Plaintiffs point out, fracking will contribute more than just an increased well pad size—there are other different, associated surface disturbances that will likely occur, such as larger gathering lines, staging areas, and water impoundment facilities, that were

¹³ The completed phrase for the bottom left category reads in full: (i.e. remaining disturbance after reclamation). The Table carries over into the next page only to complete that phrase. See BLM-1356.

not accounted for in either the BLM's 2016 EA or the 2012 SIR. Nor is it clear from BLM's May 2012 Letter, USFS's 2012 SIR, or BLM's 2016 EA that the same type of surface disturbances associated with conventional vertical drilling would be analogous to fracking. Thus, the Court cannot conclude that BLM engaged in a reasoned decision process when it determined that fracking would cause surface disturbance on only 55 acres because BLM considered in that calculation the surface disturbance caused by well-pads and nothing else.

Likewise, Defendants cannot argue that such information was unavailable, and thus not foreseeable, at the time BLM prepared its 2016 EA. In 2016, there was evidence in the record that greater surface disturbance was likely to occur with fracking activities than estimated in the 2006 Forest Plan and USFS's 2012 SIR, which Plaintiffs raised in the comment period for the 2016 EA. Pls.' MSJ 24, ECF No. 83. BLM's response to the public comment concerning surface area disturbance was: "Since the exact design details are not known at the leasing stage, it is not possible to know exactly what supporting infrastructure would be needed if development occurs in the future, other than acknowledging that additional surface disturbance could occur (as identified in the EA) . . . further detailed NEPA analysis would be conducted at the Application for Permit to Drill (APD) stage." BLM-1511. Such a response, when information from other sources is attainable and presented to BLM, is insufficient.¹⁴ See *Los Padres*

¹⁴ For example, BLM concludes, without any support, that "there is already a well-developed pipeline infrastructure in place which should minimize the need for lengthy

ForestWatch v. United States BLM, No. CV-15-4378, 2016 U.S. Dist. LEXIS 138782, at **35–36 (Cen. D. Cal. Sept. 6, 2016) (an agency “may not avoid an obligation to analyze in an EIS environmental consequences that foreseeably arise from a[] [Resource Management Plan] merely by saying that the consequences are unclear or will be analyzed later when an [environmental assessment] is prepared for a site-specific program proposed pursuant to the RMP. . . . [u]ncertainty about which specific parcels and wells will employ fracking in the future does not obviate the necessity to evaluate the cumulative environmental consequences to the Bureau’s decision to open or maintain . . . federal land . . . to oil and gas activities.” (internal citations omitted) (emphasis removed))). Indeed, there is evidence in the record that demonstrates that BLM *can* and *does* routinely estimate surface disturbances. To not do so when there was reasonably foreseeable impacts from fracking was arbitrary and capricious.

gather lines to service new wells.” FS-5632. But such conclusion is contrary to record information, albeit record information submitted primarily by various organizational Plaintiffs, that demonstrate that gathering pipelines for fracking and conventional vertical drilling cannot be interchanged. See FS-2966–67. Plaintiffs move for the Court to take judicial notice of the fracking pipeline perimeter, but the Court need not rule on that motion to arrive at the conclusion that BLM did not consider the appropriate scope that fracking pipelines might have in WNF. Thus, the Court **DENIES** Plaintiffs’ motion, ECF No. 84, as moot. Moreover, even if Plaintiffs’ argument is primarily from their own comments in the 2016 EA’s comment period, Defendants do not argue that Plaintiffs estimates are false, argue that the same pipelines can be used for both conventional and fracking activities, or provide citation to where they otherwise addressed the comment in their Final EA. Finally, the Court is not tasked with weighing whether Plaintiffs’ assertion is true or accurate. Rather, its tasked with reviewing whether the agencies adequately considered the record evidence. And here, the failure to reasonably consider whether the drilling methods would require different pipelines, once presented with the issue, is not a sufficient review.

C. Impacts¹⁵ on Private Land

Plaintiffs next argue that Defendants failed to appreciate and adequately analyze the indirect and cumulative effects, enabled through federal leasing, that fracking on private lands in the Forest would have, even though Defendants were aware of the impacts of fracking on adjacent or nearby private lands and the impacts were reasonably foreseeable. Defendants contend that they adequately considered the effects of fracking on private land, to the extent they were required to do so.

An agency must consider all foreseeable direct, indirect, and cumulative impacts of its decision. *Sierra Forest Legacy v. Sherman*, 646 F.3d 1161, 1180 (9th Cir. 2011). In evaluating an agency's environmental impact analysis, courts must be cognizant that "[t]here are natural limits to the amount of forecasting that can be done . . . and agencies are required only to make a reasonable, good faith, objective presentation of those impacts sufficient to foster public participation and informed decision making." *High Country Conservation Advocates*, 52 F. Supp. 3d at 1188 (quoting *Colo. Env't Coal. v. Domebeck*, 185 F.3d 1162, 1177 (10th Cir. 1999) (further citations omitted)).

In this case, Plaintiffs generally argue that Defendants should have considered fracking impacts on private land—indirect and cumulative. Plaintiffs

¹⁵ The parties and the caselaw use "impacts" and "effects" interchangeably. The Court will endeavor to use "impacts" unless quoting. But effects and impacts are synonymous in meaning. See 40 C.F.R. § 1508.8.

point specifically to Defendants' failure to analyze the impacts on (1) the Little Muskingum River and (2) the Indiana Bat.

1. Indirect Impacts

Plaintiffs argues that many indirect impacts from private land fracking activities were not considered. Although USFS's 2012 SIR did not consider the impacts of leasing on private lands, BLM has discussed the potential impacts, noting in its 2016 EA that:

Given the highly fragmented nature of land ownership in the Marietta Unit, a well pad on one parcel, federal or private, may be serviced by roads, pipelines, tank batteries, and other infrastructure on other parcels in other ownerships. Second, an operator may use directional drilling to locate a pad on a parcel not directly above the bottom hole location for various reasons, thus enabling federal minerals to be accessed from outside the federal surface.

BLM-1427. BLM also acknowledged that "indirect effects may include development of oil and gas resources on non-federal lands." BLM-1452.

Defendants do not dispute that the 2006 Forest Plan EIS "limited its consideration of direct and indirect effects to National Forest System land," Defs.' MSJ 20, ECF No. 92 (citing FS-9574), but they contend that they are neither required to analyze the indirect impacts because leasing federal land for fracking is not an indirect impact to private land, and even if it was, there is no requirement to discuss indirect impacts in a "distinct section" of the EIS. Defs.' MSJ 22, ECF No. 92.

Indirect impacts are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.” 40 C.F.R.

§ 1508.8(b). These effects include: “growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” *Id.* “Effects are reasonably foreseeable if they are sufficiently likely to occur that a person of ordinary prudence would take [them] into account in reaching a decision.” *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017) (citation omitted).

Defendants argue that most of Plaintiffs’ indirect impacts arguments are foreclosed by the Supreme Court’s decision in *Department of Transportation v. Public Citizen*. 541 U.S. 752 (2004). The question before the Supreme Court in *Public Citizen* was whether NEPA and the Clean Air Act required the Federal Motor Carrier Safety Administration (“FMCSA”) to evaluate the environmental effects of vehicles traveling across the Mexican border when undergoing its NEPA review. *Id.* at 756. FMCSA’s EA concluded that any change in volume of Mexican trucks and buses would not be due to its proposed resolution, but rather due to other political decisions outside of FMCSA’s control (in this case the North American Free Trade Agreement); and thus, not an “indirect effect” from the issuance of its regulations. *Id.* at 761. The Court of Appeals disagreed and remanded back to the agency for preparation of an EIS. *Id.* at 763. But the Supreme Court reversed, holding that “NEPA requires ‘a reasonably close causal

relationship' between the environmental effect and the alleged cause . . .” akin to proximate cause. *Id.* at 767 (internal citation omitted). Thus, the Court reasoned that “[s]ince FMCSA ha[d] no ability categorically to prevent the cross-border operations of Mexican motor carriers,” or “the power to act on whatever information might be contained in an EIS[,]” analyzing the environmental effects of Mexican trucks would not fulfill NEPA’s “twin aims.” *Id.* at 768. Defendants argue that this case is similar in that USFS and BLM have no control over what oil and gas activities occur on private land; therefore, Plaintiffs cannot show that the Agencies’ decision to lease proximately causes effects (in this case increased fracking) on private lands. Defs.’ MSJ 22, ECF No. 92.

Plaintiffs argue *Public Citizen* does not control because here, and unlike in that case, the Agencies have some control over whether to issue leases on federal lands, which in turn will impact whether private land development increases, given the patchwork of private and federal lands interspersed throughout the WNF. Pls.’ Reply 17, ECF No. 105. Plaintiffs contend that BLM was aware that there would be development on private lands because of federal leasing. See BLM-1360 (rejecting the “No Action Alternative”—which would have prohibited surface occupancy on federal land—because that “alternative would unnecessarily constrain oil and gas occupancy, especially in this highly fragmented landscape, where the ability to cross federal land may be critical to enabling an operator to develop.”). Plaintiffs further argue that lack of control does not relieve Defendants from disclosing possible effects. *Id.* at 16. But, if it

is true that Defendants do not have the ability to control what development occurs on private land,¹⁶ i.e. through regulations or stipulations, then it would seem that *Public Citizen* precludes Plaintiffs' argument here, because Defendants would be powerless to act on any information in an EIS about private indirect effects.

Accordingly, the Court agrees with Defendants and finds that *Public Citizen* ultimately controls here. Even if BLM's decision and USFS's approval to lease federal lands will perpetuate growth on private lands, neither agency will have the ability to control the development or other activities on private land. Thus, the Court finds that it was not arbitrary and capricious for BLM and USFS to not consider the indirect effects leasing federal lands would have on private land.

2. Cumulative Impacts

Plaintiffs' discussion of impacts to private lands primarily focused on whether development on private land can be an "indirect impact" of leasing federal land, but the Court will address whether Defendants adequately considered cumulative impacts caused by private land fracking to the extent Plaintiffs developed that additional argument.

¹⁶ Plaintiffs and Defendants agree on one scenario when Defendants would have some input or control over what happens on private land—if a lessee uses private land to access federal minerals in some way. The Court agrees with Defendants that this is the applicable scenario where deferral until the APD stage makes sense; because only when specific parcels are being leased will Defendants know whether such uses will occur. See Defs.' MSJ 21–22, ECF No. 92; Pls.' Reply 16–17, ECF No. 105.

The regulations define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.”

40 C.F.R. § 1508.7. “Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” *Id.*

“Consideration of cumulative impacts requires some quantified or detailed information’ that results in a ‘useful analysis,’ even when the agency is preparing an EA and not an EIS . . . ‘[g]eneral statements about possible effects and some risk do not constitute a hard look absent justification regarding why more definitive information could not be provided.’” *Ctr. For Env’t’l Law & Policy v. United States Bureau of Reclamation*, 655 F.3d 1000, 1007 (9th Cir. 2011) (quoting *Kern*, 284 F.3d at 1075).

A meaningful cumulative impact analysis must identify five things: (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

San Juan Citizens All. v. Stiles, 654 F.3d 1038, 1056 (10th Cir. 2011).

Here, the record reflects that because WNF is a patchwork of parcels with different owners—federal, state, and private—there is a strong likelihood that “a

single wellbore is likely to extend through a patchwork of parcels with different owners of the surface and subsurface minerals, especially as Shale drilling often involves drilling horizontally through areas extending more than a mile.” Pls.’ MSJ 26, ECF No. 83 (citing BLM-29005); *see also* BLM-1360. Thus, Plaintiffs argue that the cumulative impacts of both private and federal fracking are important considerations that were not fully addressed in either the 2012 SIR or the 2016 EA.

The 2006 Forest Plan and 2006 EIS did not consider any cumulative impacts of fracking on private lands as it found that method not viable at that time. FS-10248. Likewise, the 2012 SIR did not consider the cumulative impacts of fracking on private land. *See* FS-5530 (noting that well site estimates “do[] not include private surface lands located within the proclamation boundary.”). Thus, to the extent BLM’s 2016 EA “tiered” to the 2012 SIR and the 2006 Forest Plan and EIS for cumulative effects of oil and gas leasing, such reliance would be misplaced. Moreover, the lack of discussion elsewhere may trigger a heightened discussion in the EA. *See Kern*, 284 F.3d at 1078 (“If, as is the case here, there is no analysis in the EIS, the scope of the required analysis in the EA is correspondingly increased.”).

Defendants contend that the cumulative impacts analysis in BLM’s EA sufficiently discussed cumulative impacts from surrounding private lands in the Forest. Defs.’ MSJ 20, ECF No. 92. BLM stated in its EA that it considered the cumulative impacts of the Marietta Unit and its surrounding area. BLM-1451.

Section 4.16 of the EA discussed cumulative impacts of fracking on: air; plant and animal habitat and populations; water resources and water quality; soil geology and mineral resources; wastes, public health and safety; transportation; recreation and land use; noise; cultural resources and Native American concerns; visual resources and scenic quality; and socioeconomics. See BLM-1451–64.

As an initial matter, Plaintiffs seem to be arguing that Defendants failed to adequately consider *all* cumulative impacts, see Pls.’ MSJ 28, 30, ECF No. 83, but the Court finds that Plaintiffs failed to adequately develop this argument as to all categories, especially because they often fail to distinguish between their indirect or cumulative impact arguments in their briefing. Instead, the Court will limit its focus on the two private land cumulative impacts sufficiently briefed by Plaintiffs—the Little Muskingum River and Indiana Bat.

a. Little Muskingum River

Plaintiffs argue that Defendants overlooked the potential for significant water depletion from the Little Muskingum River. There is no dispute that fracking requires extensive amounts of water—upwards of millions of gallons. See FS-4245; BLM-1436. The record is also clear that the 2006 Forest Plan EIS did not consider that amount of water usage.

The 2012 SIR noted that “no agency (federal or state) [] regulates water withdrawal from streams and rivers in the State of Ohio.” FS-5556. Instead, it explained that water usage is governed by the “reasonable use doctrine” in Ohio.

FS-5556 (citing O.R.C. 1521.17). But it further explained that reasonable use does not govern oil and gas activities; rather, agreements between landowners and mineral owners must be made. FS-5556–57. Despite these acknowledgements, the 2012 SIR concluded that, with respect to groundwater depletion:

No additional analysis or protections are needed at the Forest Plan level. While the 3.5 – 4 million gallons required for horizontal operations represent a change from the conventional well operations, the level of effect is not anticipated to increase. By using the existing measures in the Forest Plan, *supported by Ohio reasonable use doctrine*, there is no increased effect to groundwater due to depletion, since at the site specific level the WNF will be able to control withdrawals and limit them to periods when water is plentiful.

FS-5557.

USFS made an almost identical conclusion with respect to surface water depletion, relying on the Forest Plan's existing measures and Ohio's reasonable use doctrine to conclude that despite the millions of gallons of additional water required for fracking and not considered in the 2006 Forest Plan and EIS, "the level of effect is not anticipated to increase." FS-5568–69.

Setting aside for a moment the inconsistency as to whether Ohio's reasonable use doctrine aided in water conservation, the USFS's regional office comments support the Court's ultimate conclusion that the 2012 SIR did not actually conduct a reasoned review.

A USFS Regional Office review of an internal draft of the 2012 SIR's water resource overview is rife with comments pointing out how flimsy the 2012 SIR's,

and in turn the 2006 EIS's, water resource review was. For example, when explaining that the Forest Hydrologist considered "a vast amount of information related to oil and gas fracturing activities" the reviewer noted that, "Sounds like the analysis in the Plan EIS was not adequate Remember, this is an evaluation of the adequacy of the Plan EIS, so all the extra work is NOT a plus." FS-3525.¹⁷ Meaning, the fact that the hydrologist had to consider vast amounts of information leads to the conclusion that the 2006 Forest Plan and EIS did not sufficiently account for the issue of fracking. The water resource overview draft also discussed how Ohio handled fracking developments, including that Ohio enacted additional measures to address the impacts of fracking. To which the commentator noted: "So the State found that it needed to change its requirements after 2006. That DOES NOT support an argument that the Plan EIS and Plan requirements are still adequate." FS-3526. But instead of addressing the potential flaws raised by the comments, USFS removed the paragraphs at issue from the final 2012 SIR and replaced them with general language indicating that Ohio's laws adequately protect water usage or included large block quotes from the 2006 Forest Plan EIS. See FS-5550.

Indeed, as the USFS commentator pointed out, "a lot of the material in the groundwater and surface water effects section is a restatement of standards, regulations, etc. rather than an actual effects analysis." FS-3545. The Court

¹⁷ This language was changed to "pertinent information" instead of "vast" in the final 2012 SIR. See FS-5544.

could not have said it better. As is highlighted by the USFS reviewer's comments, what is lacking from USFS's review are the actual effects of the increased water needs for fracking in the Forest. What we have is basically a regurgitation of the 2006 EIS's water plan discussion for conventional drilling, but there is no analysis or reasoned discussion of how, or whether, the vast amounts of water needed for fracking will pose different environmental risks. Thus, it is apparent that the direct impacts of water depletion from fracking, let alone the cumulative impacts, have not been rationally and reasonably considered by USFS in the 2012 SIR. The Court finds that the 2006 Forest Plan and EIS did not sufficiently address the new and different impacts of fracking on water usage, particularly how fracking would affect the Little Muskingum River. The 2012 SIR's cursory and conclusory review of the cumulative impacts on water depletion in the Forest from fracking did not cure the deficiency.

Similarly, BLM's 2016 EA fails to adequately consider the cumulative impacts of fracking on federal and private land would have on the Little Muskingum River. BLM's 2016 EA noted that "there is likely not enough surface water in the Marietta Unit for water to be withdrawn and used so [fracking] water would either need to be brought into the area or potentially withdrawn from the Ohio River, although a local waterway may be used if it is determined to be an appropriate water source." BLM-1436–37. Plaintiffs argue that the only feasible local waterway would be the Little Muskingum River and that the depletion effects were foreseeable at the time that BLM prepared its EA. Pls.' Reply 22,

ECF No. 105. Defendants do not dispute that the Little Muskingum River is likely to be used or considered, but they argue that just because BLM did not mention it by name does not mean that its analysis was inadequate. Regardless of whether BLM mentioned the river by name, there is no discussion or analysis of how local waterways will likely be affected by the potential withdrawal of millions of gallons of water from both private and federal lands. The record indicates that the Little Muskingum River is located within the Marietta Unit, see BLM-1474, fed by smaller streams in the area. BLM-1390. The EA also noted that, as of 2015, there were a total of 790 active wells in the WNF, but it does not indicate whether those wells are for conventional drilling, fracking, or a combination of both. BLM-1452.¹⁸ There is also no discussion of how that number of wells on private lands would impact the Little Muskingum River or other local waterways, other than to acknowledge that “despite the potential for cumulative effects to water resources, reclamation and other stipulations and best management practices, as described earlier in this EA, would help minimize the potential for significant adverse cumulative effects.” BLM-1459. That conclusory justification is meaningless when the record is devoid of any analysis or discussion of how the Little Muskingum River would be impacted by fracking activities in the WNF. The EA relied on the 2006 Forest Plan EIS mitigation efforts, which did not consider the

¹⁸ Elsewhere in Section 3.4.2, the EA does note that “15,707,339 barrels of oil and 651,193,106 million cubic feet (Mcf) of gas were produced from Ohio’s horizontal shale wells in the first nine months of 2015.” BLM-1388.

impacts of fracking. Accordingly, failure to meaningfully discuss the cumulative impacts on the Little Muskingum River was arbitrary and capricious.

b. Indiana Bat

Plaintiffs argue that by looking only at the impacts of federal land clearing activities, Defendants ignored the potential for destruction of Indiana Bat foraging areas, male roosting trees, and summer maternal roosting trees. Pls.' MSJ 32, ECF No. 83. Plaintiffs further argue that Defendants' reliance on FWS's 2005 Biological Opinion ("2005 BiOp"), in both the 2012 SIR and 2016 EA, is insufficient because the 2005 BiOp only considered potential habitat loss on federal land. *Id.* (citing FS-10079–81; BLM-1431). Defendants argue that Plaintiffs are merely speculating as to harm. They contend that "surveys have never documented the Indiana bat on the Marietta Unit." Defs.' MSJ 26, ECF No. 92 (citing FS-7404–05). However, that argument contradicts the EA, which noted that the Indiana bat "is well-documented on all units of the WNF and is present year-round." BLM-1379.

The EA's discussion of the oil and gas impacts on the Indiana Bat is as follows:

The Forest Service determined that oil and gas activities are likely to adversely affect Indiana bat (2006 Forest Plan Final EIS, p. F1-58). However, the USFWS determined that the 2006 Forest Plan's activities are ***not likely to jeopardize the Indiana bat's continued existence*** (BO, p. 75), and potential negative impacts to individual bats are not expected to have measurable negative impacts on colonies or discrete populations. Based on this finding, the USFWS

issued an incidental take permit that applies to activities conducted pursuant to the 2006 Forest Plan, including oil and gas activities.

BLM-1431 (emphasis in original).

The problem with reliance on the 2005 BiOp is that just like the 2006 Forest Plan, the BiOp did not consider the impacts of fracking, only conventional vertical drilling oil and gas activities.

Elsewhere the 2016 EA acknowledges generally that there would “likely be an increase in habitat fragmentation and creation of edge habitat, particularly in areas where oil and gas development may be more concentrated.” BLM-1457. But it concludes that despite this potential for increased effects, “reclamation and other stipulations and best management practices, as described earlier in this EA, would help to minimize the potential for significant adverse cumulative effects.” BLM-1457. Once again, this is a conclusion without record support. The reason for this is a combination of USFS and BLM's failure to adequately address the likely surface disturbance and reliance on the 2005 BiOp and 2006 Forest Plan and EIS, none of which considered the impacts of fracking at all. The Court cannot conclude that impacts of fracking on the Indiana Bat were reasonably considered when the only supporting document—the 2005 BiOp—did not consider it at all, and the total surface disturbances, which impacts their habitats, was not adequately addressed.

Relatedly, Plaintiffs contend that USFS and BLM violated the ESA, and FWS violated the APA, when they failed to reinitiate consultation under Section 7

of the ESA for the Indiana Bat. At this time, given the lack of record evidence one way or another regarding the cumulative impacts on the Indiana Bat, especially without knowing the surface area disturbance on federal land or the cumulative effects generally, the Court cannot conclude that FWS failed to act on information that may impact the Indiana Bat. Accordingly, Plaintiffs' claims as under the ESA are **DENIED**. However, to the extent that an actual cumulative impacts analysis, coupled with another analysis of the total surface area likely to be disturbed are completed, the Court does not find that as a matter of law Defendants can wait until the APD phase to evaluate the potential harm to the Indiana Bat.¹⁹

D. Air Quality

Plaintiffs next contend that the 2006 Forest Plan and EIS provide “no quantification of criteria pollutant²⁰ emissions from vertical wells or analysis of their overall contribution to air quality degradation in the region presented” and that subsequent agency documents fail to address the issue in the context of fracking. Pls.’ MSJ 37, ECF No. 83; see *also* 2006 Forest Plan EIS, “Air Quality,” FS-9338–40. Defendants argue that the agencies considered the effects that oil

¹⁹ Because the Court does not address the merits of Plaintiffs’ ESA claim, the Court **DENIES** the motion for leave to file an Amicus brief, as it only addressed whether FWS was required to re-initiate consultation. ECF No. 94.

²⁰ The EPA established National Ambient Air Quality Standards (“NAAQS”) to protect the public health and the environment. The EPA has also established acceptable concentrations for six pollutants in the outdoor air: carbon monoxide, ground-level ozone, lead, nitrogen dioxide, particulate matter, and sulfur dioxide (“criteria pollutants”). 2006 Forest Plan EIS, FS-9338.

and gas leasing would have on air quality “to the extent practical for their respective decisions at this stage of leasing.” Defs.’ MSJ 30, ECF No. 92.

Essentially, Defendants again revert to their standby argument that leasing itself would have no direct impacts on air quality; thus, any specific analysis will be conducted at the APD stage. *Id.* But the Court has already rejected that argument. Separately, Defendants point to BLM’s 2016 EA discussion in Section 4.2.1, where BLM noted that “at the leasing stage, there is a degree of speculation and uncertainty with regard to the amount of air emissions (and GHGs) that could occur since specific design details are not yet known.” 2016 EA, BLM-1412.

The 2006 Forest Plan EIS’s discussion of “Air Quality and the Environmental Consequences” noted that of the twelve counties in southeastern Ohio USFS manages in the WNF, all but one is considered “in attainment,” FS-9338, which means the air quality is cleaner than permissible levels is classified as an “attainment” area. Conversely, not being “in attainment” means that “the level of [the criteria pollutants] in the air over the Forest is below the ambient air quality standards set by EPA.” FS-9338. However, the 2006 Forest Plan EIS also acknowledges that WNF “has some of the highest levels of air pollution in the nation.” FS-9338. Nevertheless, the 2006 Forest Plan and EIS focused primarily on air quality impacts from wildfires and prescribed burns, not from oil and gas extraction. See FS-9339.

1. USFS's Review

USFS's 2012 SIR acknowledged that fracking activities could lead to more pollutants in the air but concluded that:

Because of the low level of horizontal well activity projected to take place for the remainder of the first ten years of Forest Plan implementation (13 well sites) the EIS remains valid in that effects to air quality would be negligible. No other protections at the Forest Plan level are needed, since the Ohio EPA has the jurisdiction to regulate air quality and emissions[.]

2012 SIR, FS-5602.

In support of their argument that the USFS's review was arbitrary, Plaintiffs cite to an USFS regional office critique of the "air quality" section. The reviewer recommended removing some language that essentially described what regulatory authorities and guidelines applied to air quality and noted that the rest of the air quality section "sa[id] nothing substantive about effects. What is needed is a comparison of emissions disclosed in the Plan EIS and those expected from [fracking]." But it does not appear that the drafters implemented the regional officer's feedback because the final 2012 SIR does not add any meaningful comparisons.²¹

²¹ Nor do Defendants point to any specific, qualitative or quantitative scientific analysis of air quality in the 2006 Forest Plan or 2006 EIS as it relates to oil and gas activities, despite conventional vertical drilling being considered as part of the 2006 Forest Plan and 2006 EIS.

The Court finds that the 2012 SIR's conclusory statement is insufficient to qualify as a hard look. Moreover, USFS cannot tier its review to the 2006 EIS if the air quality impacts of oil and gas leasing were not analyzed in that document.

2. BLM's review

BLM's 2016 EA provides more analysis of the air quality in WNF. See BLM-1361–73. BLM's 2016 EA included a section on foreseeable GHG emissions, relying in large part on the scientific paper, *Life cycle greenhouse gas emissions of Marcellus shale gas*, Jiang et al., 2011. The paper included the following relevant assumptions—"5 acres for wellpad disturbance, approximately 6 wells per well pad (per the 2006 RFDS), approximately 25 years for the lifetime of a well, and use of [fracking]." BLM-1417. Plaintiffs do not dispute that BLM adequately considered GHG emissions, and instead argue that BLM's ability to conduct a quantitative, predictive analysis of GHG emissions demonstrates that their failure to do so on other criteria pollutants was arbitrary and capricious. Plaintiffs also reiterate that delay until the APD phase would "circumvent considerations of cumulative air quality impacts of Forest-wide horizontal well development." Pls.' Reply 27, ECF No. 105. Defendants respond that they quantified GHG emissions because CEQ directed the agencies to do so (at the time) but that Plaintiffs point to no similar requirement for other air pollutants. Defs.' Reply 16–17, ECF No. 107.

Plaintiffs do rely on a 2011 Memorandum of Understanding ("2011 MOU") among the U.S. Departments of Agriculture, the Interior, and the EPA, which

requires the Lead Agency, as “early as possible in its planning process,” to “identify the reasonably foreseeable number of oil or gas wells that can be expressed as a range, expected to be located within the planning area . . . [and] prepare an Emissions Inventory of criteria pollutants.” 2011 MOU, BLM-45479–80. Defendants counter that the 2011 MOU requires analysis only “where air quality or AQRVs are issues warranting NEPA analysis.” Defendants point to BLM’s EA which discussed air quality and other NAAQS criteria pollutants and determined that all parts of the Marietta Unit were in attainment. See 2016 EA, BLM-1361–68. Thus, because the Marietta Unit was in attainment, Defendants argue that BLM was not required to analyze NAAQs impacts further at the leasing phase.

Plaintiffs rely on *Colorado Environmental Coalition v. Salazar*, 875 F. Supp. 2d 1233, 1256–59 (D. Colo. 2012) (“CEC”) to refute Defendants’ air quality deferral argument. In that case, the plaintiffs alleged that BLM failed to take a hard look when it concluded that the proposed plan would not result in any unconsidered cumulative effects on air quality. *Id.* at 1257. The district court agreed, finding BLM’s proffered reasons unpersuasive, in part, because BLM was able to estimate certain air quality effects but failed to explain why it could not estimate others, and that BLM’s reliance on the lack of ozone violations in the past “[was] of no significance when the purpose of the EIS is to attempt to predict” future environmental effects. *Id.* at 1257. Defendants argue that this case is distinguishable because, unlike in *CEC*, there is no contradictory

evidence to show that BLM's reasons were unsupportable. Defs.' MSJ 32, ECF No. 92. But the Court finds CEC's broader principle helpful. Just like in that case, here, BLM is trying to convince the Court, and perhaps the public, to trust them that they looked at the relevant data and determined that because all of Marietta Unit is "in attainment" now, there is no need to do further analysis. The problem with that is two-fold. First, like in *CEC*, the fact that an area is currently within the permissible air quality limits does not necessarily mean that it will be in attainment in the future, there must be a focus on future estimations as well. Second, if the agency does not show its work, the Court cannot evaluate whether its decision was reasonable. Yes, the Court must defer to scientific methods chosen by the agencies. But "deference must be earned." *Meister*, 623 F.3d at 374. A conclusion that the current estimates cannot be made at the leasing stage, despite the ability to provide estimates for GHGs, is inconsistent. Moreover, at least one case on which Defendants rely, *San Juan Citizens Alliance v. United States BLM*, 326 F. Supp. 3d 1227 (D. N.M. 2018), actually supports this Court's conclusion. In *San Juan Citizens*, the district court found BLM did take a sufficiently hard look at the air quality impacts of the proposed action when it tiered its review to a previous EIS that specifically analyzed emissions under a maximum development scenario number of wells for all six criteria pollutants. *Id.* at 1251. But here, there is no previous analysis on which BLM can rely. Similarly, *Amigos Bravos v. United States BLM*, 2011 WL7701433, at *13 (D. N.M. Aug. 3, 2011) is also distinguishable in that BLM in

that case tiered to a previous NEPA document that had analyzed the NAAQS in some detail. *See id.* at ** 4, 11, 13–14; *c.f. Save Our Cumberland Mountains v. Kempthorne*, 453 F.3d 334, 339–40 (6th Cir. 2006) (finding the EA satisfied NEPA when it “discussed at length the environmental effects” and cited to “numerous studies”).

Finally, the Court is once again not convinced of the underlying premise of Defendants’ main argument—that further analysis can wait until the APD phase. “NEPA is not designed to postpone analysis of an environmental consequence to the last possible moment. Rather, it is designed to require such analysis as soon as it can reasonably be done.” *Los Padres ForestWatch*, 2016 U.S. Dist. LEXIS 138782 at *36 (quoting *Save Our Ecosystems v. Clark*, 747 F.2d 1240, 1246 n.9 (9th Cir. 1984)). Without some quantification of the NAAQS associated with the 2006 Forest Plan, quantification of the NAAQS expected from foreseeable fracking activities, or some quantification or analysis of NAAQS in any other agency documents Defendants rely on, the Court cannot determine whether Defendants’ argument that fracking will not exceed attainment or have different environmental impacts from those associated with vertical drilling is a rational and reasonable one. *See Gov’t of the Province of Manitoba v. Norton*, 398 F. Supp. 2d 41, 66 (D. D.C. 2005) (“Federal agencies must comply with the procedural requirements of NEPA and reach reasoned decisions on issues of environmental concern. Because disclosure of information critical to decision-making is a primary function of NEPA, an agency cannot be allowed to avoid

producing a thorough EIS by ignoring a possible, but unexplored, environmental issue in the EA.”). Accordingly, the Court finds that USFS’s and BLM’s failure to analyze the foreseeable impacts on the air quality from fracking activities was arbitrary and capricious.

E. Whether an EIS is required

Finally, Plaintiffs argue that BLM and USFS not only failed to take a hard look but also failed to prepare an EIS and SEIS, respectively.

“An EIS must be prepared if substantial questions are raised as to whether a project may cause significant degradation of some human environmental factor.” *Ocean Advocates v. United States Army Corps. of Eng’rs*, 402 F.3d 846, 865 (9th Cir. 2005). An agency should assess the significance of an impact by considering both context and intensity. See 40 C.F.R. § 1508.27. “Context” requires the significance of an action be analyzed from different perspectives, including “society as a whole (human, national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). The “intensity” of an impact relates to “the severity of the impact” and requires consideration of ten factors, the following four of which are raised here:

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

40 C.F.R. § 1508.27(b).

Here, Plaintiffs argue that these four intensity factors are met and require preparation of an EIS and/or SEIS.²² The Court is not convinced. Although the Court has found that BLM and USFS failed to take sufficiently hard looks at certain aspects of fracking, it also is not finding as a matter of law that fracking *is* a significant action requiring preparation of an EIS. Rather, the Court will give BLM and USFS the opportunity to take the requisite hard look first and, after doing so, proceed accordingly.

F. Conclusion

At bottom, “NEPA does not permit an agency to remain oblivious to differing environmental impacts, or hide these from the public, simply because it understands the general type of impact likely to occur.” *Richardson*, 565 F.3d at 707. Here, USFS and BLM demonstrated a disregard for the different types of impacts caused by fracking in the Forest. The agencies made decisions premised on a faulty foundation: that the 2006 Forest Plan’s and 2006 EIS’s

²² Plaintiffs acknowledge that USFS and BLM can adopt each other’s EIS. See Pls.’ MSJ 39, ECF No. 83 (citing 40 C.F.R. § 1506.3). Thus preparation of one may negate the responsibility for the other to be prepared.

consideration of vertical drilling sufficiently accounted for the impacts of fracking. Each iteration of agency review built upon that faulty foundation—the 2016 EA relied on the 2012 SIR, which relied on a 2012 BLM Letter, which relied on the 2006 Forest Plan and 2006 EIS—but neither USFS nor BLM stopped to take that “hard look” that was required of them. Specifically, the Court finds that at the decision-to-lease phase, USFS and BLM failed to take a hard look at the impacts of fracking in the WNF, including: (1) surface area disturbance, (2) cumulative impacts on the Indiana Bat and the Little Muskingum River, and (3) impacts on air quality.

G. Remedy

Understandably, Intervenor’s arguments center on the appropriate remedy for this case. Plaintiffs seek vacatur of the leases, but Intervenor argues that vacatur constitutes a request for permanent injunctive relief and that Plaintiffs cannot meet the high burden such a request requires. Assn.’s MSJ 20, ECF No. 99; Eclipse MSJ 6–7. Plaintiffs dispute that the permanent injunction standard applies but request bifurcated briefing on the remedies in the event the Court finds that it does. Pls.’ Resp. 32, ECF No. 105. Although Intervenor disagrees that bifurcation is necessary, Defendants agree with Plaintiffs that additional briefing on remedies would be helpful, especially given that a proper remedy could vary depending on the outcome of the underlying case. Defs.’ Reply 20,

ECF No. 107. The Court agrees that additional briefing on remedies is the most prudent course of action to take. Accordingly,


- 1) Plaintiffs shall file their briefing on remedies within **thirty-five days** of the date of this Order.
- 2) Defendants and Intervenor shall file their responses within **twenty-eight days** thereafter.
- 3) Plaintiffs may file one comprehensive reply within **fourteen days** of the last-filed response.

All briefing shall address what standard applies and the applicability or inapplicability of other remedies. The parties should also discuss a range of remedies appropriate for this case, meaning options that fall somewhere between complete vacatur or remand. Finally, each brief **shall not exceed twenty pages**.

V. CONCLUSION

For the reasons addressed above, Plaintiffs' motion for summary judgment is **GRANTED in part and DENIED in part**; similarly, Defendants' and Intervenor's motions for summary judgment are **GRANTED in PART and DENIED in part**. The Clerk shall terminate all pending motions in this case.

IT IS SO ORDERED.


MICHAEL H. WATSON, JUDGE
UNITED STATES DISTRICT COURT