F I L E D
United States Court of Appeals
Tenth Circuit

April 30, 2007

Elisabeth A. Shumaker
Clerk of Court

PUBLISH

UNITED STATES COURT OF APPEALS

TENTH CIRCUIT

UTAH ENVIRONMENTAL CONGRESS, a Utah nonprofit corporation; HIGH UINTAS PRESERVATION COUNCIL, a Utah nonprofit corporation, Plaintiffs - Appellants, v. EILEEN RICHMOND, in her official capacity as Acting Forest Supervisor of the Ashley National Forest; DALE BOSWORTH, as Chief of the Forest Service; UNITED STATES FOREST SERVICE, Defendants - Appellees.	No. 06-4059

APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF UTAH
(D.C. No. 05-CV-72-TC)

Sarah Tal, Salt Lake City, Utah, for Plaintiffs - Appellants.

Mark R. Haag, (Todd S. Aagaard, and Sue Ellen Woolridge, Assistant Attorney General, Environment & Natural Resources Division, Department of Justice, Washington, D.C., and Elise Foster, Of Counsel, Office of the General Counsel, United States Department of Agriculture, Ogden, Utah, on the brief), for Defendants - Appellees.

Before, **KELLY**, **EBEL,** Circuit Judges and, **MURGUIA**[*], District Judge.

KELLY, Circuit Judge.

Plaintiff-Appellant Utah Environmental Congress filed suit in federal district court challenging the Forest Service's approval of the Trout Slope West Timber Sale project in the Ashley National Forest. UEC brought its suit pursuant to § 706 of the Administrative Procedure Act, arguing that the Forest Service's approval of the project was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." See 5 U.S.C. § 706(2)(A); Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971). Specifically, UEC argued that the Forest Service failed to adequately monitor the Colorado River Cutthroat Trout (a management indicator species), that it improperly assessed the project's impact on old-growth trees and that it failed to comply with old-growth standards, that it failed to maintain water quality standards, and that it failed to assess the cumulative effects of the project on the Colorado River Cutthroat Trout and water quality.

We exercise jurisdiction pursuant to 28 U.S.C. § 1291. For the reasons stated below, we affirm in part, reverse in part, and remand.

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[*]The Honorable Carlos Murguia, District Judge, United States District Court for the District of Kansas, sitting by designation.

Background

The Ashley National Forest consists of 1,384,132 acres of land in northeastern Utah and Wyoming. The Trout Slope West project ("the project") area comprises 18,500 acres of land in the Vernal Ranger District of the Ashley National Forest in Utah. The project area includes portions of three watersheds and is covered with pine, spruce, fir, and aspen trees. As a result of a 1980s beetle infestation, a significant number of trees in the project area are dead or fallen. The project was designed to clear out these dead or fallen trees, recover their economic value, and improve habitat within the project area. The project includes a number of mitigation measures to protect the watersheds from increased run-off and erosion resulting from the trees' removal.

The Forest Service began planning the project in 1998. In February 2004, it issued a draft Environmental Impact Statement ("EIS") and sought public comment. At the same time, it issued a Biological Evaluation and Biological Assessment addressing the project's expected impact on sensitive, threatened, and endangered species. The assessment concluded that the project's impact on Colorado River Cutthroat Trout[1] ("CRCT") would be minimal. After reviewing

[1] Cutthroat trout are large trout that resemble rainbow trout but that are distinguished by "red or orange markings on the lower jaw." cutthroat trout. (n.d.). The American Heritage Dictionary of the English Language (4th ed. 2000), retrieved March 19, 2007, from http://www.dictionary.com. Colorado Cutthroat Trout (Oncorhynchus clarki pleuriticus) have historically inhabited the most cool water habitats of the Colorado River drainage in Colorado, southern Wyoming,

(continued...)

public comments, the Forest Service issued a Record of Decision ("ROD") and approved the project on July 1, 2004.

The ROD discussed the project's expected impact on water quality, stream channels, fisheries, and other aquatic resources. It concluded that the project's adverse effects would be adequately mitigated by requiring that no trees be removed within 300 feet of any fish-bearing stream, or within 150 feet of any other stream, pond, lake, reservoir, or wetland. The ROD also concluded that the project was consistent with the Ashley National Forest Plan ("forest plan") standards for old-growth trees and that it would not have a significant impact on the amount of old-growth trees in the forest.

Utah Environmental Congress ("UEC") challenged the approval of the project through administrative review. Those appeals were denied. UEC then filed its complaint in the district court under § 706 of the APA, alleging that the Forest Service's approval of the project violated the National Forest Management Act ("NFMA") and its implementing regulations, the National Environmental Policy Act ("NEPA"), the forest plan, the Forest Service Manual, and Department of Agriculture Regulations. The district court affirmed the Forest Service's approval of the project.

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[1](...continued)
eastern Utah, and extreme northwestern New Mexico and northeastern Arizona.

Discussion

I. The Federal Regulatory Framework

A. National Forest Management Act

The Forest Service is an agency within the Department of Agriculture. It manages the National Forest System under a multitude of federal statutes and regulations. Among those statutes is the NFMA, which is primarily concerned with planning. It directs the Forest Service to develop a land and resource management plan for each unit of national forest. See 16 U.S.C. § 1604(a),(e).

There are two levels of planning under the NFMA: program planning and project planning. See Ohio Forestry Assn. v. Sierra Club, 523 U.S. 726, 729-30 (1998); Silverton Snowmobile Club v. U.S. Forest Serv., 433 F.3d 772, 785 (10th Cir. 2006). Program planning refers to the Forest Service's creation of general, forest-wide planning goals set out in a forest plan. See Utah Envtl. Cong. v. Bosworth, 443 F.3d 732, 737 (10th Cir. 2006) [herinafter UEC III].[2] Because the Forest Service must account for a variety of interests, each forest plan contemplates that the forest will be used for multiple purposes, including "outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness." Id. (citing 16 U.S.C. § 1604(e)(1)). Project planning refers to the Forest Service's

[2] To date, UEC has been a named party in four other published cases involving similar issues of forest planning and management. For clarity, we refer to each respective case with a Roman numeral corresponding to the order in which it was published.

approval or disapproval of specific projects that implement (and consequently must comply with) the forest plan. Id. (citing 16 U.S.C. § 1604(i)).

The Secretary of Agriculture has promulgated a number of regulations that set forth the procedures for planning under the NFMA. The first set of regulations relevant to this case was implemented in 1982 (36 C.F.R. Part 219). See 47 Fed. Reg. 43026-01 (Sept. 20, 1982), and included provisions directing the Forest Service, as part of its planning process, to identify and monitor management indicator species.[3] The regulations required the Forest Service to collect population trend data for management indicator species. 36 C.F.R. §§ 219.19, 27 (1983). They also directed that "[f]ish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species . . . ." Id. § 219.19. The 1982 regulations were superceded in November 2000 with new, substantially revised regulations. See 65 Fed. Reg. 67,514 (Nov. 9, 2000), codified at 36 C.F.R. Part 219 (2001). The 2000 regulations included several transition provisions specifying when the substantive planning provisions of the new regulations would become effective. Those transition provisions also set transition planning standards to govern forest plan

[3] Management indicator species are certain species identified in the forest plan that "are a bellwether for other species that have the same special habitat needs or population characteristics." UEC III, 443 F.3d at 740 n.7 (internal quotations omitted). These species "serve as a proxy for determining the effects of management activities on other species." Id.

amendments and site-specific project decisions during the transition period. UEC III, 443 F.3d at 746.

For forest plan revisions and amendments adopted during the transition period, agency officials could elect to use the substantive planning standards of either the 1982 regulations or the 2000 regulations. See 36 C.F.R. § 219.35(b) (2001). For site-specific project decisions made during the transition period, however, the transition rules directed that agency officials "consider the best available science in implementing and, if appropriate, amending the current plan." Id. § 219.35(a), (d).[4] The transition period for site-specific project decisions was set to expire on November 9, 2003, bringing other substantive provisions of the 2000 regulations into effect. See id. § 219.35(d). However, that transition period was extended for site-specific projects by an Interim Final Rule issued on September 10, 2003. 68 Fed. Reg. 53294, 53294-96 (2003). That Interim Final Rule extended the transition period for site-specific projects until January 5, 2005 when the Department of Agriculture replaced the 2000 regulations with a new final rule. Id. at 53295; see also 70 Fed. Reg. 1022, 1022-23 (Jan. 5, 2005).

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[4] The reference in the regulations to "current plan" means that the "best available science" standard applied by force of regulation only to projects implementing forest plans that pre-dated the 2000 planning rules. See Utah Envtl. Cong. v. Troyer, -- F.3d --, 2007 WL 841637, at *11 n.4 (10th Cir. 2007) [hereinafter UEC IV]. Projects implementing forest plans that were adopted, revised, or amended after enactment of the 2000 planning rules, were to be governed by the standard adopted in the forest plan itself. Id. at *11.

Thus, site-specific project decisions made from November 9, 2000 to January 5, 2005, that implemented pre-November 9, 2000 forest plans, were to be made only under the "best available science" standard. See 69 Fed. Reg. 58055, 58056 (Sept. 29, 2004). "[N]either the remainder of the 2000 planning regulations nor any of the 1982 regulations were binding on site-specific decisions during this period." Ecology Ctr., Inc. v. U.S. Forest Serv., 451 F.3d 1183, 1191 (10th Cir. 2006).

B. The Ashley National Forest Plan

The forest plan was adopted in 1986 and is intended to "guide all natural resource management activities and establish management standards and guidelines for the Ashley National Forest." II Aplt. App. at 348. The plan designates twelve management indicator species for the Ashley National Forest, one of which is the CRCT. Id. at 553-54. The forest plan includes a provision directing the forest service to:

> Complete [an] inventory of Management Indicator Species on the Forest to determine their occurrence, abundance, distribution, habitat requirements, and populations trends.

Id. at 419.

With respect to CRCT, the forest plan gives specific directives for how the species should be monitored. It directs that CRCT be monitored using population estimates and that such estimates be conducted and reported every five years. Id. at 549, 553. The plan states that further evaluation of CRCT populations will be

necessary, or a change in management direction could occur, if there is a 20% reduction in population or if the "biotic condition index"[5] drops below 75. Id. at 553.

The forest plan also contains standards governing old-growth trees. It directs the Forest Service to "[d]esignate and protect old growth areas for dependent species" and provides that "[o]ld growth should be a minimum of 160 contiguous acres and have old growth characteristics." Id. at 419. The plan specifically directs the Forest Service to "[r]etain 5% of area in old growth conditions at all times . . . ." Id. The forest plan does not define old growth or specify a method for its identification. For purposes of this project, the Forest Service defined old growth by using three old-growth attributes identified in R.G. Hamilton, United States Department of Agriculture, Characteristics of Old Growth Forests in the Intermountain Region (1993).

C. The National Environmental Policy Act

The NEPA requires federal agencies to examine and disclose the environmental impacts of their proposed actions. Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, 462 U.S. 87, 97 (1983). The NEPA imposes only procedural requirements and does not mandate results. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350-51 (1989). Relevant to this case, the

[5] A biotic condition index is a measurement of water quality in streams or creeks.

NEPA requires federal agencies to prepare an EIS for all "major Federal actions significantly affecting the quality of the human environment . . . ." 42 U.S.C. § 4332(2)(C).[6] Under the NEPA's implementing regulations, an agency prepares a draft EIS in which it evaluates the proposed action and its direct, indirect, and cumulative impact on the environment. 40 C.F.R. § 1502.14 (2006). Specifically, the NEPA requires that an EIS provide "cumulative effects" analysis based on actual data. The NEPA defines "cumulative effects" 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 . . . ." Id. § 1508.7.

In the draft stage, the agency must compare the proposed action to other reasonable alternatives, including taking no action at all. Id. § 1502.14. After a period of public comment and review, the agency responds to any comments, makes appropriate changes, and circulates a final draft of the EIS. Id. § 1503.4. The agency ultimately adopts a course of action by issuing an ROD.

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[6] If the proposed action will not significantly affect the quality of the human environment, then the NEPA directs the agency to prepare either a less detailed "environmental assessment," or in the case of a proposed action that has been predetermined not to "individually or cumulatively have a significant effect on the human environment," a "categorical exclusion." See UEC IV, 2007 WL 841637, at *3.

II. Standard of Review

We review the district court's decision affirming approval of the Trout Slope West project de novo. See Olenhouse v. Commodity Credit Corp., 42 F.3d 1560, 1564 (10th Cir. 1994). Neither the NFMA, the NEPA, nor the forest plan provides for a private right of action, so our review of the Forest Service's decision to approve the project is governed by § 706 of the APA, which allows us to set aside an agency action only if the action is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A); UEC III, 443 F.3d at 739. Under this standard, we must consider whether "the [agency's] decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." Overton Park, 401 U.S. at 416. An agency action is arbitrary and capricious "if the agency . . . 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 [if the decision] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

Although our inquiry must be thorough, the Forest Service's decision is "entitled to a presumption of regularity." See Overton Park, 401 U.S. at 415. This deference is "especially strong where the challenged decision[] involve[s] technical or scientific matters within the agency's area of expertise." UEC III,

443 F.3d at 739 (citing Marsh v. Or. Natural Res. Council, 490 U.S. 360, 378 (1989)). Additionally, we give great deference to the Forest Service's interpretation of its own regulations, and we will only reject those interpretations when they are "unreasonable, plainly erroneous, or inconsistent with the regulation's plain meaning." Bar MK Ranches v. Yuetter, 994 F.2d 735, 738 (10th Cir. 1993). Thus, "the ultimate standard of review is a narrow one [and we are] not empowered to substitute [our] judgment for that of the agency." Overton Park, 401 U.S. at 416.

III. UEC's Challenges to Approval of the Trout Slope West Project

A. The Monitoring of CRCT

UEC argues that the decision to approve the project was covered by the 1982 planning regulations of the NFMA and their specific rules regarding the monitoring of indicator species. It argues that those regulations required the Forest Service to provide quantitative population trend data for all indicator species (including the CRCT). See 36 C.F.R. §§ 219.19 and 219.27 (1983). It argues that the Forest Service never gathered actual population trend data, but instead relied on stream inventory and stream condition data as a proxy.

The Forest Service argues that it was not required to comply with the 1982 regulations, but that it had only to use the "best available science" as required by the 2000 transition regulations. The district court found that the 1982 regulations applied, and it affirmed the forest service's approval of the project under those

standards. UEC v. Richmond, No. 05-CV-72 TC, 2006 WL 325375, at *12-13 (D. Utah Feb. 10, 2006).

At the onset, we note that UEC has established the required nexus between the Forest Service's monitoring of CRCT and the project's approval to give it standing. We may only review a monitoring program "to the extent it bears on the approval of a particular project." UEC III, 443 F.3d at 749. The Forest Service argues that despite its monitoring of CRCT, the project's impacts on CRCT are so minimal, that deficiencies in CRCT monitoring are irrelevant. Aplee. Br. at 22. In UEC III, however, we stated that "population trend data is necessary to evaluate a proposed project's actual effect on the environment--such as where . . . a proposed project will create a significant impact on the environment, thus requiring an [EIS] . . . ." Id. at 750.

An EIS was issued in this case. Additionally, the parties agree that CRCT are present in the project area. Furthermore, the project contains a number of mitigation measures designed to reduce negative effects the project would otherwise have on CRCT populations. Without pre-decisional data on CRCT populations, the Forest Service could not have fully evaluated whether the project's mitigation measures were adequate. Nor could it evaluate the efficacy of those mitigation measures in the future. Taken together, these facts suggest that adequate monitoring data would be necessary to evaluate the project's effect on the environment as part of the initial administrative approval.

As previously discussed, the 1982 regulations were entirely superceded by the 2000 transition regulations with respect to site-specific project decisions implementing pre-November 9, 2000 forest plans. The forest plan in this case was adopted in 1986.[7] The project ROD was issued on July 1, 2004, during the transition period. Accordingly, the decision to approve the project was governed by the "best available science" standard, not the specific monitoring requirements of the 1982 regulations. See UEC IV, 2007 WL 841637, at *11.

UEC argues that, despite the transitional "best available science" standard, the Forest Service was bound to follow the 1982 monitoring requirements because those requirements were incorporated into the 1986 forest plan and spelled out in the Forest Service Manual. To be sure, the Forest Service is required to comply with existing forest plans, see 16 U.S.C. § 1604(i), which here includes the requirement to monitor certain management indicator species, including the CRCT. Moreover, the Forest Service Manual is useful in identifying the Forest Service's standard policies and practices. However, the 1986 forest plan did not expressly reference the 1982 regulations (then codified at § 219.19) in adopting

[7] Although the Forest Service attempted to amend the Forest Plan in 2004 to reduce the number of indicator species, that amendment was successfully challenged by UEC and rejected by the district court. See Richmond, 2006 WL 325375, at *8. Thus, the "current plan" in place when the Trout Slope West project was approved was the 1986 version.

requirements to monitor management indicator species designated by the plan.[8] Furthermore, the forest plan expressly stated that "the administration and management of the Forest will be guided by existing and future laws, regulations, policies and standards and guidelines." II Aplt. App. at 548 (emphasis added). We made clear in UEC III that such language in a forest plan does not incorporate the 1982 monitoring regulations. See 443 F.3d at 748 and n.12. Therefore, the Forest Service is obligated to apply the new regulations, see Ecology Ctr., 451 F.3d at 1191, and is also bound to apply the terms of the 1986 forest plan, including the obligation to monitor the management indicator species listed in the plan, to the extent the plan does not conflict with the "best available science" standard.[9]

While significant portions of the parties' briefs discuss whether the Forest Service met the 1982 monitoring regulations, neither brief discusses whether the Forest Service's planning actually complied with the "best available science"

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[8] UEC insists that the forest plan's reference to § 219.27 necessarily incorporates § 219.19 because § 219.27 "does reference, explicitly cite and incorporate direction from § 219.19." Aplt. Rep. Br. at 26 (citing Utah Envtl. Cong. v. Bosworth, 372 F.3d 1219, 1225 (10th Cir. 2004) [hereinafter UEC I]). UEC I, however, considered § 219.27 and § 219.19 in the context of whether § 219.19 applies to site-specific project planning, not whether reference to either section in a Forest Plan incorporates the 1982 monitoring requirements. See 372 F.3d at 1225.

[9] The Forest Service conceded at oral argument that it must follow the forest plan and suggested that the plan did not conflict with the regulatory requirement to consider the "best available science."

standard. Indeed, there is no evidence that the Forest Service intended to make use of the "best available science" when approving the project. See Richmond, 2006 WL 325375, at *12. Thus, we are faced with the same scenario we encountered in Ecology Center.

In Ecology Center, the district court analyzed the Forest Service's 2003 approval of a logging project for compliance with the 1982 monitoring regulations. See Ecology Ctr., Inc. v. Russell, 361 F. Supp. 2d 1310, 1316-17 (D. Utah 2005). The district court found that the Forest Service had complied with the 1982 regulations and that its approval of the project was not arbitrary and capricious. Id. at 1317. While the Forest Service argued on appeal that the 2000 transitional "best available science" standard governed, there was no evidence that it actually considered the "best available science" standard when approving the project. Ecology Ctr., 451 F.3d at 1192. Although Ecology Center never argued that the Forest Service failed to use the "best available science," we vacated and remanded the Forest Service's approval of the project, holding that the Forest Service's failure to consider or mention the "best available science" standard rendered its approval of the project arbitrary and capricious. Id. at 1195 (citing Forest Watch v. U.S. Forest Serv., 410 F.3d 115, 119 (2d Cir. 2005)).

In this case, there is no evidence that the Forest Service utilized the "best available science" standard in approving the Trout Slope West project. Indeed, the ROD approving the project never used the phrase "best available science,"

much less considered the substantive quality of the science utilized in approving the project. See III Aplt. App. at 644-61. Even on appeal, the Forest Service fails to explain how the science it utilized was in fact the "best available science."

The fact that UEC never argued that the Forest Service failed to use the "best available science" standard brings into conflict two established lines of precedent. The first is that we will not, absent manifest injustice, vacate or reverse a district court decision based on an argument not made by the plaintiff. See Sussman v. Patterson, 108 F.3d 1206, 1210 (10th Cir. 1997). The second, is that we may not affirm an agency decision based on reasoning that the agency itself never considered. See Ecology Ctr., 451 F.3d at 1195 (citing SEC v. Chenery Corp., 332 U.S. 194, 196 (1947)); Forest Watch, 410 F.3d at 119. This conflict was resolved by Ecology Center and UEC IV which dictate that we must vacate the Forest Service's approval of the Trout Slope West project for failure to consider the "best available science" standard. See UEC IV, 2007 WL 841637, at * 17-18; Ecology Ctr., 451 F.3d at 1195.[10] We offer no opinion as to whether the Forest Service's monitoring of CRCT complied with the "best available science"

[10] In his concurrence and dissent in UEC IV, Judge McConnell notes that there is "no precedent justifying reversal of significant agency action, affirmed by the district court, on the basis of a challenge the plaintiff did not make in district court and did not make in this Court." UEC IV, 2007 WL 841637, at *19. Nevertheless, the majority in UEC IV clearly viewed application of the proper planning standard as a legal matter, intertwined with the merits of the challenge, to be addressed by this court, and we, of course, are bound by that decision.

standard, the forest plan, or the forest service manual.[11]

On remand, as discussed above, the Forest Service will be governed by the requirements in the current forest plan and the most recent version of the NFMA implementing regulations, which were adopted in 2005. Those regulations require the Forest Service to:

> (1) Document how the best available science was taken into account in the planning process within the context of the issues being considered; (2) Evaluate and disclose substantial uncertainties in that science; (3) Evaluate and disclose substantial risks associated with plan components based on that science; and (4) Document that the science was appropriately interpreted and applied.

36 C.F.R. § 219.11(a)(1)-(4) (2005). As we stated in Ecology Center, the Forest Service need not necessarily collect new data, but it must "seek out and consider all existing scientific evidence relevant to the decision . . . [and] determine which data are the most accurate, reliable, and relevant." 451 F.3d at 1194 n.4 (internal quotations and citations omitted). After considering this "best available science," the Forest Service may then issue a new ROD on the Trout Slope West project.

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[11] Because the 2000 transition regulations mandate use of the "best available science," and were implemented after the 1986 forest plan, the regulations may preempt some monitoring provisions of the 1986 forest plan, assuming those monitoring provisions are not based on the "best available science." Furthermore, there is a possibility that the forest plan, by its reference to "future law, regulations, policies and standards and guidelines," might incorporate the "best available science" standard in lieu of its original monitoring provisions. Despite the Forest Service's suggestion that the forest plan appears to be consistent with the "best available science standard," the parties did not brief these questions, and given that the Forest Service failed even to incorporate and apply the "best available science" standard, they are not ripe for review.

B. Water Quality Standards

UEC argues that the Trout Slope West project will damage water quality and thereby violate the 1982 regulations and the forest plan. Specifically, the 1982 regulations mandate that there should be no management practices that cause detrimental changes in water temperature, chemical composition, or deposits of sediment, all of which adversely affect water conditions. See 36 C.F.R. § 219.27(e) (1983). Similarly, the forest plan requires the Forest Service to "[m]aintain or improve current stream channel stability ratings," II Aplt. App. at 427, and to maintain a biotic condition index of at least 75 in all streams, id. at 420. UEC argues that the project will adversely affect all of these standards. The Forest Service responds that the substantive standard of § 219.27(e) did not apply to the project's approval because the 1982 regulations were superceded in 2000. Regardless, it argues it complied with the regulations and the forest plan requirements concerning stream channel stability and the biotic condition index.

As is clear from our discussion above, the substantive standard of § 219.27(e) did not apply to the project's approval because the 1982 regulations were superceded in 2000. Again, however, there is no evidence that the Forest Service considered the "best available science" concerning water quality. Consequently, as with the monitoring of CRCT, the Forest Service must reevaluate the project's effect on water quality utilizing the "best available science" as required by the current NFMA regulations. For the same reasons

stated above, we offer no opinion as to whether the Forest Service's evaluation of water quality complied with the "best available science" standard and the forest plan. See supra n.11.

C. UEC's Remaining Challenges

While the Forest Service's failure to consider the "best available science" standard causes us to remand the case for an order vacating the project's approval, two other substantial arguments regarding whether the Forest Service complied with the forest plan and the NEPA were raised by UEC and adequately briefed and addressed by the parties. As these issues would likely be reargued in a subsequent appeal, we elect to address them now and so narrow the scope of our remand order.[12]

1. Old-Growth Trees

The forest plan requires that the Forest Service: "Designate and protect old growth areas for dependent species. Old growth should be a minimum of 160 contiguous acres and have old growth characteristics . . . . [And the forest service must] [r]etain 5% of area in old growth conditions at all times . . . ." II Aplt. App. at 419. The forest plan does not define "old growth," so in order for the Trout Slope West project to comply with the old-growth standards, the Forest Service was required to identify a method to delimit what old growth means in the Ashley

[12] To the extent that there have been changes in the amount of old-growth, or cumulative effects since the first ROD was issued, the Forest Service may, of course, be required to alter or amend its analysis of these areas in the new ROD.

National Forest. As previously noted, the EIS and project ROD referenced the old-growth measurement criteria identified in Hamilton. That publication defines old growth based on six criteria for live trees and four criteria for dead trees.

UEC argues that the Forest Service only relied upon "Stand Exam Data" in an attempt to meet old-growth standards adopted for the project. UEC argues that the stand exam data considered only three of the six old-growth criteria for live trees and no criteria for dead trees. Consequently, UEC argues that "no meaningful conclusion of what areas constitute old growth can be extrapolated from Stand Exam data." Aplt. Br. at 34. UEC argues it was arbitrary and capricious for the Forest Service not to use all the old-growth standards it referenced from Hamilton.

Additionally, UEC argues that the Forest Service failed to apply the 160 contiguous acre standard. It argues that a stand of trees could qualify as old growth under Hamilton, but not under the forest plan which requires 160 contiguous acres for old growth. UEC argues that the Forest Service had tree stand data for only 28% of the management area encompassing the project. Of that 28% (154,727 acres) the Forest Service designated 32,068 acres as old growth, which constitute roughly 5.8% of the management area. However, of the 32,068 acres designated as old growth, the Forest Service admits that only 57% (18,278 acres) occur in stands greater than 160 acres. Thus, UEC argues that only 3.3% of the management area was reserved for old growth, not the 5% that was required.

However, Hamilton indicates that the three criteria actually used by the Forest Service for the project are "required minimums." III Aplt. App. at 817. Thus, the Forest Service argues that it was not necessary to consider all ten Hamilton criteria, when three are sufficient. Furthermore, the Forest Service argues that it never adopted all the Hamilton criteria in the first place, because the EIS specifically notes that the Hamilton criteria are "useful for classifying individual stands of old growth, but are not a management requirement and do not address old growth retention across a landscape." Id. at 728 (emphasis added). The EIS went on to note "stands that meet Hamilton's minimum old growth characteristics can be estimated from Common Stand Exam data." Id. (emphasis added). Even so, the Forest Service considered additional criteria, aside from the three Hamilton criteria, including data on stand composition, stem density, roadless areas, and past harvest activities. I Aplee. Supp. App. at 84-90. Given the forest plan's lack of direction on what constitutes old growth, and the Forest Service's expertise in this area, we determine that its use of the three minimum Hamilton criteria, along with the Common Stand Exam data and the additional criteria, is reasonable in these circumstances.

With respect to the 160 acre and 5% standards, the Forest Service has treated the two as independent requirements since the forest plan's adoption in 1986. In other words, the Forest Service only considers contiguous blocks of 160 or more acres in designating and protecting "old growth areas," but it considers all

stands with old-growth characteristics for the 5% standard. Aplee. Br. at 38. The Forest Service's interpretation is reasonable because the two standards are separate in the forest plan, use different language, and are not both applied to every management area. Furthermore, nothing in the forest plan clearly suggests the two requirements should be read conjunctively.[13] We are obliged to defer to the Forest Service's interpretation. See UEC III, 443 F.3d at 739.

Because the project area will include at least 32,068 acres of old growth,[14] roughly, 5.8%, the Forest Service met the 5% criteria. With respect to the 160 acre criteria, it appears that only one contiguous stand of more than 160 acres will be affected by the project, see III Aplt. App. at 647, 695, 733-38, and that the stand will merely suffer a "sanitation/salvage" harvest that will remove dead, dying and diseased trees, resulting in no net loss of old-growth acreage, see id. at 738. Furthermore, the project will result in a harvest of only 40 acres of trees, lowering the 5.8% retention of old growth to 5.79%. Thus, the Forest Service appears to have complied with the forest plan standards for maintaining old-growth trees. At the very least, its interpretation of the standards and its

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[13] UEC responds that there is nothing in the forest plan to indicate the two standards should be applied independently. This simply illustrates that the forest plan is vague on how to apply the two standards, indicating that deference to the agency is appropriate.

[14] The Forest Service had tree stand data for only 28% of the project area. It seems fair to argue, and the Forest Service does, that the remaining 72% of acreage would include additional stands of old-growth trees.

application of them is not arbitrary and capricious.

2. Cumulative Effects on CRCT and Water Quality

Under the NEPA, an EIS must analyze the cumulative effects of a proposed project on the environment. The NEPA defines cumulative effects 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. Cumulative impacts can result from individually minor but collectvely significant actions taking place over a period of time.

40 C.F.R. § 1508.7 (2006).

UEC argues that the EIS for the project described the cumulative effects of the project but failed to analyze "what the nature and extent of the impacts would be." See Defenders of Wildlife v. Babbitt, 130 F. Supp. 2d 121, 138 (D.D.C. 2001). It further argues that the EIS lacks "meaningful analysis," and that it is conclusory, describing the negative impacts of the project but failing to provide a "realistic evaluation of the cumulative impacts." Aplt. Br. at 49.

The Forest Service correctly notes, however, that the NEPA does not prohibit approval of projects with negative cumulative effects; it only requires that the Forest Service consider and disclose such effects. See Robertson, 490 U.S. at 350-51. The Forest Service pointed to numerous cites in the administrative record where there is evidence of its cumulative effects analysis. Specifically, the Forest Service used two computer models to calculate the amount of expected runoff

resulting from the project and the effect on stream channels. Both models showed that the impact of the project, when considered with previous actions taken in the project area, would be minimal. III Aplt. App. at 756. Additionally, the Forest Service analyzed the project's impact when considered together with past timber sales, all past timber harvests, old burns, and livestock grazing. Id. at 726. Again, UEC simply disagrees with the substance of the Forest Service's conclusions. This is insufficient because we must defer to the Forest Service's reasonable conclusions regarding "technical or scientific matters within the agency's area of expertise." UEC III, 443 F.3d at 739.

We have said that the NEPA simply requires an agency to take a "hard look" at the potential impact of its proposed actions. Ecology Center, 451 F.3d at 1189. As long as the Forest Service complied with the NEPA's procedural requirements, we will not "second-guess the wisdom of the ultimate decision." Id. In this case, the Forest Service took a "hard look," analyzed a substantial amount of data, and simply reached a conclusion that UEC thinks is incorrect. The cumulative effects requirement of the NEPA was satisfied.

Accordingly, we **AFFIRM** those portions of the district court's order rejecting UEC's challenges concerning old growth and cumulative effects. However, we **REVERSE** the portion of the district court's order rejecting UEC's challenge to the Forest Service's monitoring of CRCT and its analysis of water quality and set aside its affirmance of the project's approval. We **REMAND** to

the district court so it may remand to the Forest Service for further administrative action consistent with this opinion.