

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

MONTANA WILDERNESS
ASSOCIATION; GREATER
YELLOWSTONE COALITION; THE
WILDERNESS SOCIETY, INC.,
Plaintiffs,

and

CITIZENS FOR BALANCED USE;
KENNETH ZAHN; BIG SKY
SNOWRIDERS; GALLATIN VALLEY
SNOWMOBILE ASSOCIATION,
Plaintiffs-Appellants,

v.

KATHLEEN McALLISTER, Regional
Forester for Region 1; REBECCA
HEATH; UNITED STATES FOREST
SERVICE,
Defendants-counter-defendants-
Appellees,

TREASURE STATE ALLIANCE;
MONTANA TRAIL VEHICLE RIDERS
ASSOCIATION; MONTANA
SNOWMOBILE ASSOCIATION; UNITED
FOUR-WHEEL-DRIVE ASSOCIATIONS;
BLUE RIBBON COALITION, INC.,
Defendant-intervenors-Appellees.

No. 09-36051

D.C. Nos.

9:07-cv-00039-

DWM

1:07-cv-00059-

DWM

MONTANA WILDERNESS
ASSOCIATION; GREATER
YELLOWSTONE COALITION; THE
WILDERNESS SOCIETY, INC.;
CITIZENS FOR BALANCED USE;
KENNETH ZAHN; BIG SKY
SNOWRIDERS; GALLATIN VALLEY
SNOWMOBILE ASSOCIATION,
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v.

KATHLEEN McALLISTER, Regional
Forester for Region 1; REBECCA
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SERVICE,
*Defendants-counter-defendants-
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and

TREASURE STATE ALLIANCE;
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ASSOCIATION; MONTANA
SNOWMOBILE ASSOCIATION; UNITED
FOUR-WHEEL-DRIVE ASSOCIATIONS;
BLUE RIBBON COALITION, INC.,
Defendant-intervenors.

No. 09-36058
D.C. No.
9:07-cv-00039-
DWM

MONTANA WILDERNESS
ASSOCIATION; GREATER
YELLOWSTONE COALITION; THE
WILDERNESS SOCIETY, INC.;
CITIZENS FOR BALANCED USE;
KENNETH ZAHN; BIG SKY
SNOWRIDERS; GALLATIN VALLEY
SNOWMOBILE ASSOCIATION,
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v.

KATHLEEN McALLISTER, Regional
Forester for Region 1; REBECCA
HEATH; UNITED STATES FOREST
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TREASURE STATE ALLIANCE;
MONTANA TRAIL VEHICLE RIDERS
ASSOCIATION; MONTANA
SNOWMOBILE ASSOCIATION; UNITED
FOUR-WHEEL-DRIVE ASSOCIATIONS;
BLUE RIBBON COALITION, INC.,
Defendant-intervenors-Appellants.

No. 09-36080

D.C. No.
9:07-cv-00039-
DWM
OPINION

Appeal from the United States District Court
for the District of Montana
Donald W. Molloy, District Judge, Presiding

Argued and Submitted June 7, 2011
Submission Withdrawn June 17, 2011
Resubmitted November 22, 2011
Portland, Oregon

Filed December 1, 2011

Before: Raymond C. Fisher, Ronald M. Gould and
Richard A. Paez, Circuit Judges.

Opinion by Judge Fisher

COUNSEL

Alan J. Campbell, Office of the General Counsel, U.S. Department of Agriculture, Missoula, Montana; Ignacia S. Moreno, Assistant Attorney General, Allen M. Brabender (argued), David C. Shilton, Mark R. Haag, Julie Thrower, Anna T. Katselas, Attorneys, U.S. Department of Justice, Washington, D.C.; William W. Mercer, United States Attorney, and Leif Johnson, Assistant U.S. Attorney, Billings, Montana, for the Federal appellants.

Douglas L. Honnold, Timothy J. Preso (argued) and Jenny K. Harbine, Earthjustice, Bozeman, Montana, for appellees Montana Wilderness Association, et al.

Paul A. Turcke and Carl J. Withroe, Moore Smith Buxton & Turcke, Chartered, Boise, Idaho; Catherine A. Laughner, M. Christy S. McCann (argued) and Kyle W. Nelson, Browning, Kaleczyc, Berry & Hoven, P.C., Bozeman, Montana, for appellants Recreation Groups.

OPINION

FISHER, Circuit Judge:

A coalition of environmental groups (Montana Wilderness Association, et al., hereinafter MWA) challenges the 2006

Gallatin National Forest Travel Management Plan prepared by the United States Forest Service, arguing that the travel plan violates the Montana Wilderness Study Act of 1977 (Study Act). We hold that the Study Act requires the Service to ensure that current users of a wilderness study area are able to enjoy the wilderness character of the area as it existed in 1977, pending a congressional decision on whether to designate the area as wilderness. In this case, the Service has not adequately explained how the 1977 wilderness character of the relevant study area, particularly the opportunities for solitude it offers, has been maintained despite an increase in the volume of motorized and mechanized recreation in the area. We therefore conclude that the Service's adoption of the travel plan was arbitrary and capricious, and accordingly affirm the district court's decision finding that the Service's actions violate the Administrative Procedure Act (APA).

STATUTORY BACKGROUND

We begin with a brief overview of the statutes that govern the land management decision challenged in this case.

The 1964 Wilderness Act established a National Wilderness Preservation System composed of congressionally designated wilderness areas. *See* Pub. L. No. 88-577, 78 Stat. 890 (1964); 16 U.S.C. § 1131(a). Under the Wilderness Act, "wilderness" is defined as "an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain." 16 U.S.C. § 1131(c). The definition further specifies:

An area of wilderness . . . (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its

preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Id. Unlike national forests, which are generally managed to sustain a variety of uses, *see id.* § 1604(e), wilderness areas must be managed to preserve their “wilderness character,” *id.* § 1133(b). Only certain recreational uses are appropriate in wilderness areas; motorized and mechanized activities are generally prohibited. *See id.* § 1133(b), (c).

In 1967, the Forest Service undertook a nationwide inventory of large roadless areas within the National Forest System, “select[ing] areas with the most merit for specific study as possible additions” to the National Wilderness Preservation System. S. Rep. No. 95-163, at 2 (1977). Congress became concerned, however, that in conducting this review the Service may have “unjustifiably rejected from wilderness consideration” several large tracts in Montana. H.R. Rep. No. 95-620, at 3 (1977). In response, Congress passed the Study Act, which identified nine wilderness study areas in Montana for renewed evaluation. *See* Pub. L. No. 95-150, § 2(a), 91 Stat. 1243 (1977). The Study Act directed the Secretary of Agriculture to review these study areas’ “suitability for preservation as wilderness” and to advise Congress whether each study area should be designated as wilderness or removed from study area status. *Id.* § 2(a), (b). The Study Act also instructed that, pending congressional action on the Secretary’s recommendations, the study areas “be administered . . . so as to maintain their presently existing wilderness character and potential for inclusion in the National Wilderness Preservation System.” *Id.* § 3(a). The Secretary, acting through the Service, has long since made these recommendations. Congress, however, has not yet acted on them. Accordingly, until Congress either designates the study areas as wilderness areas or removes their Study Act protection, the Service must con-

tinue to manage them to maintain their 1977 wilderness character and potential for wilderness designation.

FACTUAL AND PROCEDURAL BACKGROUND

The Hyalite-Porcupine-Buffalo Horn Wilderness Study Area, a 155,000-acre region within southwest Montana's Gallatin National Forest, is managed under the Study Act. Until recently, the Service administered the entire Gallatin National Forest, including the study area, under a forest plan prepared in 1987.¹ Since the forest plan was prepared, however, recreation and travel uses of the Gallatin National Forest have evolved substantially. Motorized and mechanized recreational use has intensified: "[u]se of snowmobiles and ATVs has grown in popularity," for instance, and mountain bike activity has "exploded." Observations by Forest Service personnel further indicate that motorized and mechanized recreational use has increased in the study area in particular, not just in the Gallatin National Forest in general, although the Service does not possess "statistically sound" data fully illustrating these historical changes. For example, during the winter of 1999-2000, snowmobile traffic on the Big Sky snowmobile trail, which passes through the study area, was roughly double that observed in the winter of 1978-79.

In 2002, realizing that "the demand for some recreation opportunities" in the Gallatin National Forest might "be reaching the point of exceeding the capability of the land to provide them," the Service began preparing the travel plan to balance travel and recreational uses with other management goals. In October 2006, the Service released the record of decision (ROD) for the travel plan, along with a final environ-

¹See U.S. Dep't of Agric., Forest Service, Forest Plan, Gallatin National Forest (1987), available at <http://www.fs.usda.gov/> (select "Gallatin" from drop-down menu; follow "Go" hyperlink; select "Land & Resources Management," then "Planning"; follow "Gallatin Forest Plan" hyperlink) (last visited Aug. 29, 2011).

mental impact statement (FEIS) prepared to satisfy the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq.*

When preparing the portion of the travel plan that covers the study area, the Service recognized that the increasing use of motorized and mechanized transports like snowmobiles, motorcycles and mountain bikes, none of which can be used in designated wilderness areas, might potentially degrade the study area's wilderness character relative to the 1977 baseline, in contravention of the Study Act's mandate that 1977 wilderness character be maintained.² Thus, to comply with the Study Act, the Service examined which portions of the study area were available for motorized and mechanized recreational use in 1977, and compared the 1977 areas to the areas available in 2006, when the travel plan was prepared. After conducting this analysis, the Service restricted summer use of motorcycles and mountain bikes to 168 total trail miles, and restricted winter use of snowmobiles to an 11,000-acre open area surrounded by a 7000-acre buffer zone.³ The parties dispute whether these restrictions amount to a net increase or decrease in the physical area of motorized and mechanized use relative to the 1977 baseline. All acknowledge, however, that the Service at least attempted to comply with its Study Act management obligations by reconfiguring the physical areas in which such use occurs.

²Although they are of course not motorized, mountain bikes are mechanized, or mechanical, transport vehicles that are not allowed in designated wilderness areas. *See* Peter A. Appel, *Wilderness and the Courts*, 29 Stan. Envtl. L.J. 62, 87 (2010) ("Bicycles, particularly mountain bikes, are now popular forms of recreational transportation in back country areas but the land management agencies prohibit them in wilderness areas because they are 'mechanical transport.'").

³Snowmobiles are not confined to trails, so the travel plan's restrictions on the area of snowmobile use are framed in terms of acreage rather than trail miles.

Although it reconfigured the *area* over which motorized and mechanized use occurs relative to 1977, however, the Service did not explicitly account for the increase in *volume* of use over time. The Service acknowledged that use volume has increased in the study area since 1977, but noted that accounting for the increase was somewhat problematic because there were no “reliable (statistically valid) recreation use data available.” The Service concluded, however, that the missing data were not relevant in any event because the Study Act requires the Service to maintain only those physical characteristics that may affect a study area’s ability to provide a wilderness experience in the event of *future* wilderness designation. The Service did not attempt to maintain the area’s 1977 wilderness character, including the relatively low motorized use volumes that existed at that time, for the enjoyment of *current* users.

After the travel plan was finalized, MWA brought this action under the APA, alleging the travel plan and FEIS “allow motorized and mechanized activities [in the study area] to increase beyond the 1977 status quo,” in contravention of the Study Act. MWA also alleged that the Service violated NEPA by failing adequately to disclose and analyze the impact of the travel plan on the study area’s wilderness character. Citizens for Balanced Use, et al. (Citizens), a coalition representing enthusiasts of motorized and mechanized recreation, filed a separate lawsuit against the Service, alleging just the opposite: that the travel plan unlawfully *restricts* motorized use in the study area. On appeal, however, Citizens largely supports the restrictions adopted by the Service and argues that the Service’s decision is entitled to deference.⁴

⁴A different coalition of motorized recreational use groups also intervened in MWA’s lawsuit and cross-claimed against the Service, also alleging unlawful restrictions on motorized use. In this opinion, we refer to all recreational use groups collectively as “Citizens.”

One coalition of recreational groups also brought NEPA claims relating to the entire travel plan, not just the portion addressing the study area. Citizens’ cross-appeal challenges the district court’s rejection of these claims. We address the cross-appeal in a memorandum disposition filed concurrently with this opinion.

The district court consolidated the two cases. It then granted MWA's motion for summary judgment and denied the cross-motions of the Service and Citizens. The court concluded that the Service failed adequately to explain how the travel plan's reconfiguration of the physical areas open to motorized and mechanized use satisfied the Study Act's mandate to maintain 1977 wilderness character, in light of acknowledged increases in use volume. *See Mont. Wilderness Ass'n v. McAllister*, 658 F. Supp. 2d 1249, 1255 (D. Mont. 2009). The court recognized that the Service lacked complete historical data that would allow it to quantify the volume of use increase precisely, *see id.*, but held that the Service was nonetheless not permitted to ignore increased volume of use altogether. *See id.* at 1256. The court found that the Service had done so, and that the omission "render[ed] the decision arbitrary and capricious" in violation of the APA. *Id.* at 1255.

The court also ruled that, by asserting that the missing historical volume of use data were not relevant to its Study Act analysis, the Service violated its NEPA obligation to include in the FEIS "a statement of the relevance of . . . incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment." 40 C.F.R. § 1502.22(b)(2); *see McAllister*, 658 F. Supp. 2d at 1255-56. The court enjoined the Service from continued implementation of the travel plan and remanded to the agency. *See McAllister*, 658 F. Supp. 2d at 1266. The Service appealed.

JURISDICTION AND STANDARD OF REVIEW

We have jurisdiction over the Service's challenge to the district court's remand order under 28 U.S.C. § 1291. *See Chugach Alaska Corp. v. Lujan*, 915 F.2d 454, 457 (9th Cir. 1990) (holding that an agency may appeal immediately from a remand order because "review would, as a practical matter, be foreclosed if an immediate appeal were unavailable").

“We review the district court’s summary judgment de novo, applying the same standards that applied in the district court.” *Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 778 (9th Cir. 2006). Because NEPA and the Study Act do not contain independent judicial review provisions, our review of the travel plan’s compliance with these statutes is governed by the APA, which allows us to set aside agency decisions that are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

In reviewing the Service’s justification for its decision under the arbitrary and capricious standard, we ask only whether the agency “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 [an explanation that] is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc) (alteration in original) (quoting *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)) (internal quotation marks omitted), *abrogated on other grounds by Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7 (2008).

In reviewing the Service’s interpretation of the Study Act, we apply the framework set forth in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). *See Coeur Alaska, Inc. v. Se. Alaska Conservation Council*, 129 S. Ct. 2458, 2469 (2009).

DISCUSSION

I.

We agree with the district court that the travel plan does not adequately address the Service’s Study Act obligation to maintain the study area’s 1977 wilderness character. The Ser-

vice first erroneously determined that the Study Act does not require it to maintain the 1977 wilderness character of the study area for the enjoyment of the area's current users. Then, based on its misinterpretation of the Study Act, the Service ignored the obvious impact of increased volume of motorized and mechanized use on current users' ability to enjoy the study area's 1977 wilderness character. Because the Service entirely failed to consider this important aspect of its Study Act obligation, the travel plan is arbitrary and capricious.

A.

We first address the Service's interpretation of the Study Act.

[1] As we explained in *Russell Country Sportsmen v. United States Forest Service*, ___ F.3d ___, No. 10-35623, slip op. 18851 (9th Cir. Oct. 12, 2011), the Study Act imposes two requirements. "First, the Service must administer study areas so as to maintain their wilderness character as it existed in 1977. Second, the Service must administer the areas so as to maintain their potential for designation as wilderness areas — i.e., as part of the National Wilderness Preservation System." *Id.* at 18861. The dispute in this case centers on the first requirement, to maintain 1977 wilderness character.

The parties offer competing interpretations of this requirement. The first — offered by the Forest Service in its appellate brief — is that the statute requires only that the Service maintain those "physical, inherent characteristics" of the study areas that will make them suitable for *future* wilderness use. The second — urged by MWA, and implicitly adopted by the district court — is that the Service must maintain 1977 wilderness character, including 1977's relatively low volumes of motorized use, for the enjoyment of *current* users of the study areas, in addition to ensuring that the areas' physical potential for future wilderness designation is not destroyed. We conclude, based not only on the language of the Study Act

and the 1964 Wilderness Act but also on basic common sense, that MWA's interpretation is correct.

[2] The Service's argument that it can satisfy its statutory obligation to maintain a study area's wilderness character by preserving only its *physical* wilderness characteristics is out of step with the 1964 Wilderness Act, which the Service agrees should inform the definition of "wilderness character" for purposes of the Study Act. The Wilderness Act does not define "wilderness" solely according to "physical, inherent characteristics." Instead, it states that, in *addition* to having physical characteristics such as large acreage, a wilderness "has outstanding opportunities for solitude." 16 U.S.C. § 1131(c). An area's ability to provide solitude depends on a current user's perception of *other* users around him — not just on the physical characteristics of the land. *See* American Heritage Dictionary of the English Language 1655 (4th ed. 2000) (defining "solitude" as "The state or quality of being alone or remote from others"); Oxford English Dictionary (online version June 2011) (defining "solitude" as "The state of being or living alone; loneliness; seclusion; solitariness (of persons)"). Furthermore, because the Wilderness Act governs *current* wilderness areas, the term "opportunities for solitude" must include the experience of *current*, as well as future, users of the area. *See* Webster's Third New International Dictionary 2170 (2002) (defining "opportunity" as "a combination of circumstances, time, and place suitable or favorable for a particular activity or action <the many small rivers . . . offered unlimited *opportunities* for water transport — *Amer. Guide Series: R. I.*> <artists are given ~ to do creative work — *Amer. Guide Series: N. H.*>" (alteration in original)). The Service's focus on physical characteristics alone, without regard to the opportunities for solitude currently available, fails to capture this important aspect of wilderness character.

[3] In *Russell Country Sportsmen*, ___ F.3d at ___, slip op. 18864, we interpreted the statutory mandate to maintain wilderness character to require that the Service "provid[e] cur-

rent users with opportunities for solitude comparable to those that existed in 1977” (emphasis added). This interpretation accords not only with the language of the Wilderness Act, but also with common sense. If the Study Act allowed the Service to focus on physical wilderness characteristics alone, even a massive escalation in noisy, disruptive motorized use would trigger no management response so long as there was no resulting physical degradation. For example, the Service could allow sightseeing helicopters to fly over the study areas in unlimited numbers, filling the study areas with loud and intrusive noise. Because the helicopters would likely never touch the ground, however, their presence — which from a common-sense perspective would plainly degrade the areas’ wilderness character — could persist uncontrolled. We agree with the district court that confronted this very situation that Congress could not have intended to permit such a result. *See Greater Yellowstone Coal. v. Timchak*, No. CV-06-04-E-BLW, 2006 WL 3386731, at *3-*4 (D. Idaho Nov. 21, 2006) (sensibly observing, in analyzing the impacts of helicopters used for heli-skiing in a Wyoming wilderness study area, that “loud helicopter flights [can] be inconsistent with solitude,” and holding that the Service was required to address the impact of a tenfold increase in helicopter flights on the study area’s wilderness character).

The Service’s determination that it need not maintain wilderness character for the enjoyment of current study area users is also inconsistent with its own past practice. *See S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 901 (D.C. Cir. 2006) (examining the agency’s statutory interpretation for consistency with its past practice). For example, in the portion of the 2006 Region 1 supplement to the Forest Service Manual that explains how study areas should be managed to maintain their 1977 wilderness character, the Service stated that “[i]f conflicting uses are occurring” in a study area, responsible officials should “consider separating the uses geographically through an appropriate planning process” by, for example, “identify[ing] areas for snowmobiling and areas for

cross-country skiing and snowshoeing.” But user conflict has no clear impact on an area’s physical landscape — the only sort of impact the Service now argues is relevant — although it does have an obvious effect on the study area’s current users. The Service’s determination, in its own manual supplement, that easing user conflict may help maintain wilderness character shows that it once considered current user impacts to be relevant to its Study Act obligations, even if it has abandoned that position in this litigation.

Likewise, in evaluating the wilderness character of the Middle Fork Judith Wilderness Study Area at issue in *Russell Country Sportsmen*, the Service examined current users’ perceptions of the study area. In a preliminary assessment of historical changes in the area’s wilderness character, which the Service included in its final environmental impact statement, the Service focused on wilderness experience for current users, explaining, for example, that “[t]he opportunity to find natural quiet during the winter is the same now as in 1977,” and commenting that “[l]evels of use in the backcountry have not increased dramatically since 1977.” The Service’s extensive discussion of these changes in *current* users’ ability to enjoy the wilderness character of the Middle Fork Judith Wilderness Study Area undermines its assertion in this case that it has *never* interpreted the statute “to require management that would provide a wilderness experience in the study areas,” comparable to that available in 1977, before a decision on wilderness designation is made.

[4] We therefore conclude, consistent with the Wilderness Act and with the Service’s own past practice, that the Study Act requires the Service to maintain a study area’s 1977 wilderness character for the enjoyment of current users. Thus, because wilderness character depends in part on the availability of opportunities for solitude, the Service must “provid[e] current users with opportunities for solitude comparable to those that existed in 1977.” *Russell Country Sportsmen*, —

F.3d at ___, slip op. 18864. The Service's determination to the contrary is inconsistent with the Study Act.

The Service contends that we should defer to its interpretation of the Study Act, which it says can be inferred from its focus on the study area's physical wilderness characteristics in the travel plan and FEIS. We recognize that cogent administrative interpretations of ambiguous statutes "warrant respect," *Alaska Dep't of Env'tl. Conservation v. EPA*, 540 U.S. 461, 488 (2004) (quoting *Wash. State Dep't of Social & Health Servs. v. Guardianship Estate of Keffeler*, 537 U.S. 371, 385 (2003)) (internal quotation marks omitted), even if they are not the product of any "relatively formal administrative procedure," such as notice-and-comment rulemaking, *United States v. Mead Corp.*, 533 U.S. 218, 230 (2001). We do not believe, however, that any cogent interpretation of the Study Act can be discerned from the brief discussion of wilderness character in the travel plan and FEIS or from the 2006 Region 1 supplement to the Forest Service Manual. Moreover, the Service's interpretation of the statute deviates from the terms of the Wilderness Act and Study Act, as well as from the Service's own past practice. It is therefore not entitled to deference. *See Chevron*, 467 U.S. at 842-43.

B.

The Service entirely failed to explain how the travel plan provides current study area users with opportunities for solitude comparable to those that existed in 1977 despite increased volume of motorized and mechanized use.

[5] The Service recognized that motorized use has increased in volume, but reasoned that it need not account for the increase because the area's *physical* features, such as "size, presence of vegetative or topographic screening, [and] distance from civilization," had not changed. This is non-responsive. Increased volume of motorized use has obvious and potentially significant impacts on the opportunities for

solitude available within a study area, even if the area remains physically unchanged. Increased noise from snowmobiles and motorcycles, for example, may greatly disturb users seeking quiet and solitude. *See Timchak*, 2006 WL 3386731, at *3. If a hypothetical hiker traversing a certain route in 1977 would have encountered one noisy motorcycle, but today would encounter 20, his opportunities for solitude have plainly decreased, unless the impact can somehow be offset by other factors or considered so small as to make no qualitative difference.

[6] The Service made no attempt to consider or account for these impacts of increased volume of use. There is nothing in the travel plan or FEIS that explains how current users' ability to seek solitude in the study area has not declined since 1977, given the increased volume of motorized and mechanized vehicles. *Cf. id.*, 2006 WL 3386731, at *4 (“If the FEIS had discussed how the overall . . . wilderness character — that is, the opportunities for solitude and primitive recreation — would be maintained by the [Service’s decision], despite the ten-fold increase in the effects of helicopter use, the FEIS would comply with the Wyoming Wilderness Act[, which contains an identical mandate to maintain 1984 wilderness character]. However, that analysis is missing.”). The Service therefore entirely failed to consider an important aspect of its obligation to maintain 1977 wilderness character, making the travel plan arbitrary and capricious. *See Lands Council*, 537 F.3d at 993 (describing arbitrary or capricious review). The Service must take a fresh look at its decision and determine, after taking into account all of the impacts of increased motorized use volume, whether the motorized use restrictions it imposes are adequate to maintain 1977 wilderness character for the enjoyment of current users.⁵

⁵Because we remand so that the Service may reconsider its motorized and mechanized use restrictions, we need not resolve the parties' factual dispute regarding the extent to which the restrictions adopted by the travel plan alter the physical area in which motorized and mechanized uses will

C.

Our holding does not require the Service to do the “impractical” or the “nearly impossible,” as the Service protests. Although the Service must ensure that the study area’s overall 1977 wilderness character is not degraded, there is no requirement that it replicate 1977 conditions precisely. We recognize that the Service’s attempt to maintain 1977 wilderness character, including 1977 opportunities for solitude, may necessarily be approximate and qualitative.

We also acknowledge that the Service does not possess complete historical data illustrating changes in the volume of recreational use in the study area over time. But the proper response to that problem is for the Service to do the best it can with the data it has, not to ignore the volume of use increase completely. Agencies are often called upon to confront difficult administrative problems armed with imperfect data. *See, e.g., Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 52 (1983) (“It is not infrequent that the available data do not settle a regulatory issue and the agency must then exercise its judgment in moving from the facts and probabilities on the record to a policy conclusion.”); *Natural Res. Def. Council, Inc. v. EPA*, 529 F.3d 1077, 1085 (D.C. Cir. 2008) (describing the agency’s efforts to evaluate health risks caused by certain industrial chemicals despite “gaps in the data” by backfilling certain data points with “environmentally protective defaults”). Our decision requires only that the Service grapple with the problem the statute defines.

occur relative to the 1977 baseline. We do, however, agree with the district court in principle that any comparison the Service may choose to conduct between the physical extent of motorized use under the travel plan and the extent of such use in 1977 would most sensibly be focused, to the extent practicable, on the area over which use *actually* occurred in 1977, as opposed to the area in which use was *authorized*. After all, recreational use most clearly impacts wilderness character in the areas in which it actually occurs, not merely the areas in which it is formally permitted.

We likewise do not dictate the correct substantive outcome on remand. We do not necessarily agree with the district court, for example, that “the *only* way [the Service’s] decision can survive the arbitrary and capricious standard of review is to substantially reduce the overall area for vehicle use or to reduce overall motorized and mechanized vehicle access.” *McAllister*, 658 F. Supp. 2d at 1256 (emphasis added). Although the Service might reasonably compensate for an increase in the volume of motorized use by reducing the overall area of impact, we do not assume that this is the only proper response to increased volume of use when relevant data are scarce. We do assume there may be other reasonable management responses to the problem the Service faces.

II.

[7] The Service’s failure to appreciate the relevance of the historical increase in volume of use for purposes of its Study Act analysis also resulted in a failure to comply with NEPA regulations requiring acknowledgment that relevant data are unavailable or incomplete. Under 40 C.F.R. § 1502.22:

When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking. . . .

(b) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the environmental impact statement: (1) A statement that such information is incomplete or unavailable; (2) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable signifi-

cant adverse impacts on the human environment; (3) a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and (4) the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.

In addressing § 1502.22, the Service noted that historical data tracking changes in the volume of recreational use within the study area could not be obtained, but concluded that such data were not necessary in any event. This conclusion was apparently based on the Service's faulty determination that it was not obligated to maintain the study area's 1977 wilderness character, including 1977 opportunities for solitude, for the benefit of current users. The FEIS stated:

Historic recreation use data specifically for the [study area] is not available, nor is it possible to acquire such data at the present time.

1502.22(b)(2) directs the Agency to provide a statement of relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse effects on the human environment. Changes in recreation use have certainly occurred within the [study area] since 1977 However, the volume of recreation use was not a component the original WARS evaluations of these areas were conducted relative to opportunities for solitude. [sic] Rather the WARS analysis required consideration of the physical parameters of the area. Size, distance from roads, topographic and vegetative screening were the primary factors used to evaluate opportunities for solitude. Thus — discrete data that tracks changes in the volume of use over time are not necessary for evaluating the effects of proposed travel

plan changes relative to [study area] physical characteristics that provide opportunities for solitude.

[8] This discussion does not satisfy the requirements of § 1502.22. As we have explained, the historical increase in volume of use *is* relevant to the Study Act analysis, contrary to the Service's reasoning. We accept the parties' agreement that if historical volume of use data are relevant to the Study Act analysis, they are also relevant for purposes of NEPA analysis, and thus are "relevant to reasonably foreseeable significant adverse impacts" under § 1502.22. We therefore hold that the Service incorrectly determined that historical volume of use data are irrelevant for § 1502.22 purposes.

We do not agree with the Service that this error was harmless. *See* 5 U.S.C. § 706 (directing that, in the course of judicial review of agency action, "due account shall be taken of the rule of prejudicial error"). As explained above, the Service's failure to consider the impact of increased use volume on the study area's wilderness character caused it to ignore an important aspect of the problem before it. We cannot conclude that this shortcoming "clearly had no bearing on the procedure used or the substance of [the] decision reached." *Riverbend Farms, Inc. v. Madigan*, 958 F.2d 1479, 1487 (9th Cir. 1992) (quoting *Sagebrush Rebellion, Inc. v. Hodel*, 790 F.2d 760, 764-65 (9th Cir. 1986)) (internal quotation marks omitted).⁶

⁶To the extent the district court suggested otherwise, in finding that the Service properly "considered the direct and indirect effects of plan alternatives to the Study Area" using "'theoretical approaches or research methods,'" *Mont. Wilderness Ass'n*, 658 F. Supp. 2d at 1256 n.4 (quoting 40 C.F.R. § 1502.22(b)(4)), we disagree. Section 1502.22(b)(4) requires that an agency unable to fill a gap in the relevant data "deal with uncertainties" that result from the missing data by evaluating potential impacts using theoretical means. *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1033 (9th Cir. 2006). Here, although the Service analyzed the direct and indirect effects of travel plan alternatives *generally*, it did not attempt to use theoretical approaches or research methods to deal with uncertainties stemming from the gaps in the available volume of use data because it erroneously concluded that such data were irrelevant altogether.

On remand, the Service must acknowledge the relevance of the missing information and comply with § 1502.22(b)'s instructions for assessing reasonably foreseeable adverse impacts despite gaps in the relevant data.

CONCLUSION

We hold that the travel plan improperly ignores the impact of increased volume of motorized and mechanized use on current users' ability to seek quiet and solitude in the study area. Because the Service entirely failed to consider this important aspect of its duty to maintain the study area's 1977 wilderness character, its decision is arbitrary and capricious. We affirm judgment in favor of MWA and against the Service and Citizens.

AFFIRMED.