FOR PUBLICATION

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

PACIFIC RIVERS COUNCIL,

Plaintiff-Appellant,

V.

UNITED STATES FOREST SERVICE; MARK REY, in his official capacity as Under Secretary of Agriculture; DALE BOSWORTH, in his capacity as Chief of the United States Forest Service; JACK BLACKWELL, in his official capacity as Regional Forester, Region 5, United States Forest Service,

Defendants-Appellees,

and

California Forestry Association; American Forest & Paper Association; Quincy Library Group; Plumas County; California Ski Industry Association, Defendants-intervenors-Appellees. No. 08-17565 D.C. No. 2:05-cv-00953-MCE-GGH OPINION

Appeal from the United States District Court for the Eastern District of California Morrison C. England, District Judge, Presiding

Argued and Submitted May 10, 2010—San Francisco, California

Filed February 3, 2012

Before: Stephen Reinhardt, William A. Fletcher and N. Randy Smith, Circuit Judges.

Opinion by Judge William A. Fletcher; Dissent by Judge N.R. Smith

COUNSEL

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OPINION

W. FLETCHER, Circuit Judge:

The national forests of the Sierra Nevada Mountains ("the Sierras") are home to a rich array of fauna, including at least 61 species of fish and 35 species of amphibians. The Sierra Nevada Ecosystem Project, a study commissioned by Congress, concluded in 1996 that their environment has been severely degraded: "The aquatic/riparian systems are the most altered and impaired habitats in the Sierra."

The Sierra Nevada Forest Plan applies to all of the national forests in the Sierras. In January 2001, the United States Forest Service ("Forest Service") issued a Final Environmental Impact Statement ("2001 EIS") recommending amendments to the Forest Plan. The amendments were intended, among other things, to conserve and repair the aquatic and riparian ecosystems. In January 2001, under the administration of

President Clinton, the Forest Service adopted a modified version of the preferred alternative recommended in the 2001 EIS. The parties refer to this as the 2001 Framework.

In November 2001, under the administration of newly elected President Bush, the Chief of the Forest Service asked for a review of the 2001 Framework. In January 2004, the Forest Service issued a Final Supplemental Environmental Impact Statement ("2004 EIS") recommending significant changes to the 2001 Framework. The Forest Service adopted the preferred alternative in the 2004 EIS. The parties refer to this as the 2004 Framework.

Plaintiff-Appellant Pacific Rivers Council ("Pacific Rivers") brought suit in federal district court challenging the 2004 Framework as inconsistent with the National Environmental Protection Act ("NEPA") and the Administrative Procedure Act ("APA"). The gravamen of Pacific Rivers' complaint is that the 2004 EIS does not sufficiently analyze the environmental consequences of the 2004 Framework for fish and amphibians. On cross-motions for summary judgment, the district court granted summary judgment to the Forest Service.

Pacific Rivers timely appealed the grant of summary judgment. For the reasons that follow, we conclude that the Forest Service's analysis of fish in the 2004 EIS does not comply with NEPA. However, we conclude that the Forest Service's analysis of amphibians does comply with NEPA. We therefore reverse in part, affirm in part, and remand to the district court.

I. Background

Stretching along a north-south axis for more than 400 miles, the Sierra Nevada Mountains form one of the longest continuous mountain ranges in the lower 48 states. The Forest Service manages nearly 11.5 million acres of land under the

Sierra Nevada Forest Plan. The Forest Plan is a Land and Resource Management Plan ("LRMP") formulated and promulgated pursuant to the National Forest Management Act ("NFMA"). See 16 U.S.C. § 1604. NFMA requires the Forest Service to provide for and to coordinate multiple uses of the national forests, including "outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness." 16 U.S.C. § 1604(e)(1). An LRMP adopted pursuant to NFMA guides all management decisions within the forests subject to that LRMP. Individual projects are developed according to the guiding principles and management goals expressed in the LRMP. See Ohio Forestry Ass'n, Inc. v. Sierra Club, 523 U.S. 726, 729-31 (1998).

The Sierra Nevada Forest Plan applies to the eleven national forests that run the length of the Sierras from Southern California to the California-Oregon border — the Sequoia, Inyo, Sierra. Stanislaus. Humboldt-Toiyabe, Eldorado, Tahoe, Plumas, Lassen, and Modoc National Forests, and the Lake Tahoe Basin Management Unit. The area encompassed by the Plan amounts to more than 5% of the total forest land managed by the Forest Service. See http://www.fs.fed.us/r5/sierra/about/ (National encompass 191 million acres). The forests support substantial economic activity, including logging and grazing, as well as recreation. The forests comprise dozens of complex ecosystems. They include iconic natural landmarks such as Mt. Whitney, Mono Lake, Lake Tahoe, and giant sequoia trees.

As part of its mandate to manage the national forests, the Forest Service took major steps in the 1990s to improve the ecological health of the Sierras. In November 1998, the Forest Service published a Notice of Intent to prepare an Environmental Impact Statement ("EIS") analyzing a number of proposed changes to the Sierra Nevada Forest Plan. The Forest Service cited the need to "improve national forest management direction for five broad problems: (1) conservation of old-forest ecosystems, (2) conservation of aquatic, riparian,

and meadow ecosystems, (3) increased risk of fire and fuels buildup, (4) introduction of noxious weeds, and (5) sustaining hardwood forests."

In 2000, after nearly a decade of study, the Forest Service proposed a number of changes to the Forest Plan to ensure "the ecological sustainability of the entire Sierra Nevada ecosystem and the communities that depend on it." The Forest Service issued a Draft EIS evaluating eight alternatives for implementing the objectives outlined in the Notice of Intent. Following public comment, scientific review and consultation with other agencies, the Forest Service released a Final EIS in January, 2001.

The 2001 EIS designated the "Modified Alternative 8" as the preferred alternative. In a Record of Decision issued January 12, 2001, the Forest Service adopted this alternative. This is the "2001 Framework."

The Forest Service received over 200 timely administrative appeals. The Chief of the Forest Service, newly appointed by the incoming administration, did not respond directly to the appeals. Rather, he directed the Regional Forester to reevaluate the 2001 Framework with respect to three fire-related issues. First, the Chief directed him "to re-evaluate the decision for possibilities of more flexibility in aggressive fuels treatment." Second, he directed him "to re-evaluate the decision based on possible new information associated with the National Fire Plan," a ten-year strategy developed by Congress, federal agencies, Indian Tribes and western States to restore fire-adapted ecosystem health. Third, he directed him to re-evaluate limitations placed by the 2001 Framework on the Herger-Feinstein Quincy Library Group Forest pilot project dealing with fire prevention.

In December 2001, the Regional Forester appointed an Amendment Review Team. The Regional Forester added nonfire-related issues to the issues identified by the Chief. In addition to the fire-related issues, he asked the Review Team to "identify opportunities" in three areas: first, to "reduce the unintended and adverse impacts [of the 2001 Framework] on grazing permit holders"; second, to "reduce the unintended and adverse impacts [of the 2001 Framework] on recreation users and permit holders"; and, third, to "reduce the unintended and adverse impacts [of the 2001 Framework] on local communities."

In June 2003, the Forest Service issued a Draft Supplemental EIS, based on the work of the Review Team. The Draft focused on a comparison of two alternatives. "Alternative S1" was the 2001 Framework. "Alternative S2" was the "preferred alternative." Alternative S2 proposed substantially more logging and associated activities than the 2001 Framework. It also proposed to reduce restrictions on grazing by commercial and recreational livestock.

The Draft was criticized by the staff of the Forest Service's Washington Office for Watershed, Fish, Wildlife, Air and Rare Plants. The staff wrote a letter complaining that there was no discussion of the effects of the logging and logging-related activities on fish:

Aquatic and Riparian: There needs to be a discussion of the effects of the new alternatives on riparian ecosystems, streams and fisheries. It is not sufficient to dismiss these effects as within the range of impacts discussed in the [2001] framework . . . without further analysis, given the activities proposed in Alternative S2. If the treatments [proposed in Alternative S2] will be sufficient to have their intended effect, there is a high likelihood that there will be significant and measurable direct, indirect and cumulative effects on the environment, which need to be analyzed and disclosed in this document.

(Emphasis added.) The letter also raised concerns that the Draft did not adequately analyze the impact of changed grazing standards on riparian environments, streams and fisheries.

The Forest Service issued the 2004 EIS in January 2004 without adding the discussion of "riparian ecosystems, streams and fisheries" that the staff letter had said was needed. The Regional Forester adopted Alternative S2 shortly afterwards in a Record of Decision. Over 6,000 administrative appeals were filed objecting to the Record of Decision. The Forest Service Chief approved the Record Of Decision without change in November 2004. This is the "2004 Framework."

Both the 2001 and 2004 Frameworks are written in general terms, rather than addressing specific sites at which the logging and logging-related activities will take place. But there are substantial differences between the 2001 and 2004 Frameworks. Relevant to this appeal are changes in authorized logging and logging-related activities, and changes in grazing standards for commercial and recreational livestock.

The most substantial changes are in logging and loggingrelated activities. The 2004 Framework allows the harvesting of substantially more timber than the 2001 Framework. The 2001 Framework allowed the harvesting of 30 million board feet of salvage timber per year during the Framework's first and second decades. By contrast, the 2004 Framework allows the harvesting of three times that amount of salvage timber — 90 million board feet per year during its first and second decades. The 2001 Framework allowed the harvesting of 70 million board feet of green timber per year during its first decade and 20 million board feet per year during its second decade. By contrast, the 2004 Framework allows the harvesting of 4.7 and 6.6 times that amount of green timber — 329 million board feet per year during its first decade and 132 million board feet per year during its second decade. The totals for salvage timber for the two decades are 600 million board feet under the 2001 Framework, and 1.8 billion board feet under the 2004 Framework. The totals for green timber for the two decades are 900 million board feet under the 2001 Framework, and 4.6 billion board feet under the 2004 Framework. Stated differently, compared to the 2001 Framework, the 2004 Framework allows the harvesting of an additional 4.9 billion board feet of timber — 1.2 billion board feet of salvage timber and 3.7 billion board feet of green timber — during its first two decades.

The 2004 Framework also allows the harvesting of larger trees than the 2001 Framework. For example, under the 2001 Framework, trees up to 30 inches in breast-height-diameter could be harvested in the wetter west side of the Sierras, but only up to 24 inches in the drier east side. Under the 2004 Framework, trees up to 30 inches in breast-height-diameter can be harvested on both the west and east sides.

The 2004 Framework substantially increases the total acreage to be logged. Under the 2004 Framework, about 15% fewer acres will be subject to prescribed burns than under the 2001 Framework, but about 250% more acres will be logged "mechanically." Further, under the 2004 Framework, more logging will be conducted close to streams than under the 2001 Framework. The 2004 EIS states, with more than the usual amount of obfuscating bureaucratese:

The spatial location of strategically placed area treatments¹ under Alternatives S1 [the 2001 Framework] and S2 [the 2004 Framework] are the same, but they are different than previously considered. For example, analysis in the [2001 EIS] was based on the assumption that the area treatments would be placed² primarily on the upper two-thirds of slopes, thus

¹There is no definitions section in the 2004 EIS. From usage in the EIS, it is apparent that "treatments" means logging and/or prescribed burns.

²In standard English, "placed" means "conducted."

minimizing overlap with RCAs³ associated with perennial, intermittent, and ephemeral streams. However, this assumption is no longer valid. Consequently, under Alternatives S1 and S2, treatments are not limited to any geographic position.⁴ As a result, more treatments within RCAs are expected.⁵ Alternative S1 requires that portions of treatment areas be left in an untreated condition.⁶ It is likely that riparian areas would be priorities for retention to meet this requirement.⁶ Alternative S2 does not require retention of untreated areas within treatment units so that fire behavior and fire effects are effectively reduced within the entire unit.⁵

³"RCAs" are Riparian Conservation Areas. *See January* 2004 Record Of Decision approving the 2004 EIS, at 114 ("riparian conservation area (RCA)").

In its brief to this court, the Forest Service misstates the meaning of the acronym. It indicates that RCAs are *Resource* Conservation Areas. *See* Response Brief at 33 ("Resource Conservation Areas ('RCAs')"). In the context of this case, the difference between "riparian" and "resource" is important. "Riparian" is a precise term, meaning something related to the bank of a river, stream, or other body of water. "Resource" is a general term, meaning anything from a natural resource such as trees to a financial resource such as a bank account.

⁴This sentence is misleading. "Treatments" (*i.e.*, logging and burning) under Alternative S1 (the 2001 Framework) are more geographically limited than "treatments" under Alternative S2 (the 2004 Framework).

⁵This sentence translated into standard English: "As a result, more logging and burning close to streams are expected under the 2004 Framework."

⁶This sentence translated into standard English: "The 2001 Framework requires that certain areas not be logged or burned."

⁷This sentence translated into standard English: "It is likely that under the 2001 Framework riparian areas would not be logged or burned."

⁸This sentence translated into standard English: "The 2004 Framework allows logging and burning close to streams in order to eliminate trees everywhere in a given 'treatment unit' as a means of reducing the risk of fire."

We remind the Forest Service: "Environmental impact statements shall be written in plain language . . . so that decisionmakers and the public can readily understand them. Agencies should employ writers of clear prose or editors to write, review, or edit statements[.]" 40 C.F.R. § 1502.8.

The 2001 Framework limited soil "compaction" in project areas close to streams to 5% of the area, but the 2004 Framework places no limit on "disturbances" in such areas.

The 2004 Framework allows substantially more construction of new, and reconstruction of existing, logging roads than the 2001 Framework. Under the 2001 Framework, 25 miles of new roads were to be constructed, and 655 miles of existing roads were to be reconstructed, during the first decade. Under the 2004 Framework, 115 miles of new roads are to be constructed, and 1,520 miles of existing roads reconstructed, during the first decade. However, under the 2001 Framework, 950 miles of roads were to be decommissioned, compared with 1,175 miles of old roads that are to be decommissioned under the 2004 Framework. The 2004 Framework also allows an additional 215 miles of temporary roads (43 miles of temporary roads per year for 5 years) and slates an additional 3,200 miles of roads for maintenance (640 miles per year for five years).

Finally, grazing restrictions under the 2001 Framework are reduced in the 2004 Framework. Under the 2001 Framework, commercial livestock (cattle and sheep), as well as recreational livestock (pack and saddle stock used by commercial outfitters) were to be excluded from meadows known to be occupied by Yosemite Toads during the toads' breeding and rearing seasons, as well as from meadows where surveys to determine the presence (or absence) of Yosemite Toads had not yet been performed. The 2004 Framework allows commercial livestock to graze in meadows where surveys to determine the presence of Yosemite Toads have not yet been performed. Further, the 2004 Framework eliminates the categorical exclusion of recreational pack stock and saddle stock from toad-occupied meadows during the breeding and rearing season, and allows managers to develop project-based plans to mitigate effects on the toad.

Other restrictions on grazing have also been reduced. The 2004 Framework divides habitat-protecting restrictions on

grazing into several categories based on the adverse impacts on the grazing permittee: the greater the adverse impact, the more habitat-protecting effort is required on the part of the permittee. The 2004 EIS describes the effect of the 2004 Framework on 47 grazing permittees (amounting to 11% of the "active allotments"). Under the 2001 Framework, there were no permittees on whom the regulations had no adverse impact. The regulations had a low adverse impact on 11 permittees, a medium adverse impact on 17, a high adverse impact on 12, and a very high adverse impact on 7. Under the 2004 Framework, those numbers are, respectively, 14, 7, 10, 9, and 7. That is, a total of 14 grazing permittees who had been adversely impacted by habitat-protecting regulations under the 2001 Framework are not adversely impacted at all under the 2004 Framework. For three of those permittees, the change effected by the 2004 Framework is to move from a high adverse impact to no impact at all — that is, to move from regulations requiring "substantial" habitat-protective effort by the permittee to regulations requiring no effort whatsoever by the permittee.

The 2004 EIS predicts that the 2004 Framework will reduce the annual acreage burned by wildfires. Under the 2001 Framework, the estimated annual acreage of wildfires was 64,000 acres during the first decade, and 63,000 acres during the fifth decade. Under the 2004 Framework, the estimated annual acreage of wildfires is 60,000 acres during the first decade, and 49,000 acres during the fifth decade, resulting in a total reduction of 18,000 acres over two decades.

Pacific Rivers filed suit in May 2005, alleging that the 2004 Framework was adopted in violation of NEPA and the APA. On appeal, Pacific Rivers contends that the 2004 EIS fails to take a "hard look" at the environmental impact of the 2004 Framework on fish and amphibians. We conclude that the 2004 EIS does not comply with NEPA with respect to fish, but does comply with respect to amphibians.

II. Standard of Review

We review de novo questions of Article III justiciability, including standing. *Porter v. Jones*, 319 F.3d 483, 489 (9th Cir. 2003). We also review de novo a district court's decision on summary judgment that an agency complied with NEPA. *Or. Natural Desert Ass'n v. Bureau of Land Mgmt.*, 531 F.3d 1114, 1130 (9th Cir. 2008). Judicial review of an agency's compliance with NEPA is governed by the APA, which requires this court to set aside the agency's action if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id.* (quoting 5 U.S.C. § 706(2)(A)).

"[W]e will reverse a decision as arbitrary and capricious only if the agency relied on factors Congress did not intend it to consider, 'entirely failed to consider an important aspect of the problem,' or offered an explanation '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.' "The Lands Council v. McNair (Lands Council II), 537 F.3d 981, 987 (9th Cir. 2008) (en banc) (quoting Earth Island Inst. v. U.S. Forest Serv., 442 F.3d 1147, 1156 (9th Cir. 2006)), overruled on other grounds by Winter v. Natural Res. Def. Council, 555 U.S. 7 (2008).

"In reviewing the adequacy of an EIS, we employ a rule of reason to determine whether the EIS contains a reasonably thorough discussion of the significant aspects of probable environmental consequences." *Kern v. Bureau of Land Mgmt.*, 284 F.3d 1062, 1071 (9th Cir. 2002) (internal quotation marks omitted). "Once an agency has an obligation to prepare an EIS, the scope of the analysis of environmental consequences in that EIS must be appropriate to the action in question. . . . If it is reasonably possible to analyze the environmental consequences in an EIS . . . , the agency is required to perform that analysis." *Id.* at 1072.

III. Discussion

A. Standing

The Forest Service argues for the first time on appeal that Pacific Rivers lacks standing under Article III of the Constitution. Questions of Article III jurisdiction can be raised at any time. *See Ctr. for Biological Diversity v. Kempthorne*, 588 F.3d 701, 707 (9th Cir. 2009).

- [1] To have standing under Article III, a plaintiff must establish that
 - (1) it has suffered an "injury in fact" that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision.

Friends of the Earth, Inc. v. Laidlaw Envtl. Servs., 528 U.S. 167, 180-81 (2000). To have standing to seek injunctive relief under Article III

a plaintiff must show that he is under threat of suffering "injury in fact" that is concrete and particularized; the threat must be actual and imminent, not conjectural or hypothetical; it must be fairly traceable to the challenged action of the defendant; and it must be likely that a favorable judicial decision will prevent or redress the injury.

Summers v. Earth Island Inst., 129 S.Ct. 1142, 1149 (2009). An organization may sue on behalf of its members

when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

Laidlaw, 528 U.S. at 181.

The Forest Service contends that because Pacific Rivers challenges amendments to a Land and Resource Management Plan rather than a specific project under the LRMP, it has failed to allege a threat of a "concrete and particularized" injury that is "actual or imminent." The Forest Service also contends that Pacific Rivers' members have not specified which parts of the national forests in the Sierras they use.

The Forest Service relies heavily on the Supreme Court's decision in Summers. The plaintiffs in Summers challenged nationwide regulations promulgated by the Forest Service that exempted sales of salvage timber of 250 acres or less from NEPA requirements to prepare an EIS or an Environmental Assessment ("EA"). Id. at 1147. The plaintiffs initially challenged a specific sale of salvage timber. After the district court issued a preliminary injunction, the parties settled the dispute over that sale. Id. at 1148. On appeal, both before the Ninth Circuit and before the Supreme Court, the plaintiffs continued to challenge the validity of the exemption for 250 acres or less, though now there was no specific sale at issue. They could make only a general statement that they would visit national forests in the future and might come in contact with a parcel of 250 acres or less on which a salvage-timber sale had been conducted without an EIS or an EA. Id. at 1149-50.

The Supreme Court concluded that there was only a remote chance, "hardly a likelihood," that such visits would bring plaintiffs into contact with land affected by the challenged regulations. *Id.* at 1150. The Court noted that the regulation at issue applied to all national forest land (190 million acres) and that the size of the affected parcels was small (250 acres

or less). *Id.* "Accepting an intention to visit the National Forests as adequate to confer standing to challenge any Government action affecting any portion of those forests would be tantamount to eliminating the requirement of concrete, particularized injury in fact." *Id.*

Summers is substantially different from this case. Pacific Rivers introduced into evidence in the district court a declaration of its Chairman, Bob Anderson. Anderson declares that he lives in South Lake Tahoe, that he and his wife own property at Mono Lake, and that they "frequently hike and climb in the Sierra Nevada Range." Anderson declares further that Pacific Rivers has over 750 members, some of whom live in California. He states:

My first Sierra Nevada backpacking trip was to the Mineral King area in 2000, during which time I also fished. I plan to continue these activities as long as the management of Sierra Nevada national forests does not prevent me from doing so. I have garnered great personal solace in the knowledge that Sierra Nevada native species and the watersheds that support them persist despite over a century's worth of impacts from grazing, mining, logging, road building, dam construction, and related activities. The same is true for the membership of [Pacific Rivers], many of whom recreate in, fish throughout, and derive much satisfaction from the Sierra Nevada.

He writes specifically with respect to members:

[Pacific Rivers] members participate in recreational activities, such as fishing, hiking, backpacking, cross-county skiing, nature photography, and river and lake boating throughout the Sierra Nevada.

The Forest Service challenged Pacific Rivers's Article III standing for the first time in this court. If the Forest Service

had objected to standing in the district court, Pacific Rivers could easily have supplemented Anderson's declaration with declarations of individual members who use and the enjoy the Sierras, specifying particular national forests and particular patterns of use. Given the timing of the Forest Service's objection to standing, if we were to hold on the current record that Pacific Rivers has not sufficiently established threats of harm to its members who use the Sierras for recreation, we would remand to the district court to allow further development of the record. But we think such additional development is unnecessary. Anderson has clearly stated that he and a number of Pacific Rivers' members have used, and will continue to use, the national forests in the Sierras in a variety of places and in a variety of ways.

During the first two decades, the 2004 Framework allows the harvesting of approximately 4.6 billion board feet of green timber and approximately 1.8 billion board feet of salvage timber. This harvesting will take place in every one of the 11 national forests in the Sierras. The smallest amount of green timber harvesting during the two decades — 35 million board feet — will take place in the Lake Tahoe Management Basin. The Lake Tahoe basin is relatively small and is subject to the most intensive recreational use of the 11 national forests covered by the 2004 Framework. Anderson lives in the Lake Tahoe basin. The greatest amount of harvesting — 1.4 billion board feet — will take place in Plumas National Forest. Harvesting in quantities between these two amounts will take place in each of the other nine national forests covered by the 2004 Framework.

Under the 2004 Framework, much of the timber harvesting will be in the upper two thirds of slopes, and will therefore likely be visible from great distances. Significant timber harvesting will also take place near streams where recreational users of the forests are likely to spend much of their time. The 2004 Framework authorizes the construction of 115 miles of new roads and the reconstruction of 1,520 miles of existing

roads during the first decade. Grazing restrictions on commercial and recreational livestock will be reduced throughout the Sierras.

[2] There is a concrete connection between the interests of Pacific Rivers' members in enjoying the forests of the Sierras and the potential harm caused by the 2004 Framework. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 562-64 (1992). There is little doubt that members of Pacific Rivers will come into contact with affected areas, and that the implementation of the 2004 Framework will affect their continued use and enjoyment of the forests. By contrast, the regulation at issue in *Summers* affected only small and widely scattered parcels of land throughout the entire United States, and the plaintiffs had not shown any realistic likelihood that they would come into contact with those parcels.

There are two relevant cases in this circuit, both controlling. In *Salmon River Concerned Citizens v. Robertson*, 32 F.3d 1346 (9th Cir. 1994), we held that an environmental organization had standing to bring a challenge under NEPA to an LRMP that applied to 6 million acres of national forest land in the Sierras. *Id.* at 1349-55. The challenged LRMP allowed the "use of all methods to treat competing vegetation . . . [in order] to meet the timber yield objectives," and delegated the decision to use herbicides to the district foresters. *Id.* at 1351.

The Forest Service's standing argument in Salmon River was essentially the same as its standing argument here — that plaintiff lacked standing because it failed "to demonstrate that the members would be harmed by a specific project using herbicides." Id. at 1352. Members of the organization lived next to or within the boundaries of the area where herbicides had previously been banned but would now be permitted, and they frequently used the area for recreation. Id. at 1353. These members contended that their health and recreational interests were adversely affected by the Forest Service's decision to

permit herbicide use. *Id.* We characterized the members' injury as the risk "that environmental consequences" of herbicide use "might be overlooked[] as a result of deficiencies in the government's analysis under environmental statutes." *Id.* at 1355 (internal quotation marks omitted). That risk constituted a concrete, specific and imminent injury sufficient to challenge an EIS because "unfettered use of herbicides. . . in the absence of NEPA compliance will cause harm to visitors' recreational use and enjoyment, if not to their health." *Id.*

We specifically held that the plaintiffs did not have to "wait to challenge a specific project when their grievance is with an overall plan." *Id.* We explained why:

[I]f the agency action only could be challenged at the site-specific development stage, the underlying programmatic authorization would forever escape review. To the extent that the plan pre-determined the future, it represents a concrete injury that plaintiffs must, at some point, have standing to challenge. That point is now, or it is never.

Id. (quoting Idaho Conservation League v. Mumma, 956 F.2d 1508, 1516 (9th Cir. 1992)). See also Res. Ltd., Inc. v. Robertson, 35 F.3d 1300, 1303 (9th Cir. 1993) (rejecting, in a challenge to a forest plan, the argument that plaintiffs must "point to the precise area of the park where their injury will occur").

[3] Another Ninth Circuit panel has recently addressed a separate NEPA challenge to the same 2004 Framework at issue in our case. In *Sierra Forest Legacy v. Sherman*, 646 F.3d 1161 (9th Cir. 2011), we held that an environmental organization had standing to challenge the 2004 Framework. *Id.* at 1179-80. We noted *Ohio Forestry Ass'n v. Sierra Club*, 523 U.S. 726 (1998), in which the Supreme Court held that the Sierra Club's challenge to an LRMP under the National Forest Management Act was unripe as a prudential matter, but did not hold that the Sierra Club lacked Article III standing.

Ohio Forestry, 523 U.S. 726. The Court in Ohio Forestry specifically noted that despite the "considerable legal distance between the adoption of the Plan and the moment when a tree is cut, the Plan's promulgation nonetheless makes logging more likely in that it is a logging precondition; in its absence logging could not take place." *Id.* at 730. We held in *Sierra Forest Legacy* that the harm flowing from a failure to comply with NEPA in formulating the 2004 Framework was sufficient to confer standing on plaintiff "to bring a facial NEPA challenge to the 2004 Framework, independent from specific implementing projects." 646 F.3d at 1179.

[4] We therefore conclude that Pacific Rivers has Article III standing to challenge the 2004 Framework under NEPA.

B. NEPA

"The National Environmental Policy Act has 'twin aims. First, it places upon [a federal] agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process." Kern, 284 F.3d at 1066 (quoting Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 97 (1983)) (internal quotations and citations omitted, alteration in original). NEPA is not substantive. It does not require that agencies adopt the most environmentally friendly course of action. Kern, 284 F.3d at 1066. Rather, "[t]he sweeping policy goals . . . of NEPA are . . . realized through a set of 'action-forcing' procedures that require that agencies take a 'hard look at environmental consequences.' " Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989) (quoting Kleppe v. Sierra Club, 427 U.S. 390, 410 n.20 (1976)).

Taking a "hard look" at environmental consequences of major federal actions includes "considering all foreseeable direct and indirect impacts. Furthermore, a 'hard look' should involve a discussion of adverse impacts that does not improperly minimize negative side effects." *N. Alaska Envtl. Ctr. v. Kempthorne*, 457 F.3d 969, 975 (9th Cir. 2006) (internal quotation marks and citations omitted); *see also Or. Natural Res. Council Fund v. Brong*, 492 F.3d 1120, 1133 (9th Cir. 2007) ("[G]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.") (internal quotation marks omitted).

Pacific Rivers alleges that the 2004 EIS does not take a hard look at environmental consequences of the 2004 Framework on fish and amphibians. For the reasons that follow, we agree with Pacific Rivers with respect to fish, but disagree with respect to amphibians.

1. Fish

The 2001 EIS contained a 64-page detailed analysis of environmental consequences of the 2001 Framework for individual species of fish. In stark contrast to the 2001 EIS, the 2004 EIS contains no analysis whatsoever of environmental consequences of the 2004 Framework for individual species of fish. The 2004 EIS incorporates by reference the analysis contained in the 2001 EIS, but contains no analysis of additional or different environmental consequences of the 2004 Framework even though the new framework authorizes substantially more environment-altering activities than the old framework. Of particular importance, the 2004 Framework allows an additional 4.9 billion board feet of green and salvage timber harvesting during the first two decades, much of it conducted nearer streams, compared to the 2001 Framework. The 2004 EIS also incorporates by reference two biological assessments ("BAs") of the consequences of the 2001 and 2004 Frameworks on listed fish under the Endangered Species Act. But it neither summarizes the findings of the BAs nor includes them in an appendix.

The Forest Service contends that the 2004 EIS takes a sufficiently hard look at environmental consequences of the 2004 Framework on fish. It makes two arguments. First, it points out that the 2004 Framework is an amendment to the Sierra Nevada Forest Plan. The Forest Service argues that because the Forest Plan is an LRMP, it is not reasonably possible for the 2004 EIS to provide an analysis of environmental consequences of the 2004 Framework on individual species. Second, it argues that the 2004 EIS's incorporation by reference of the BAs concerning environmental consequences of the 2001 and 2004 Frameworks on listed fish satisfies the hard look requirement. We consider these arguments in turn.

a. Level of Required Analysis in the 2004 EIS

Federal law requires preparation of an EIS in conjunction with the preparation of a programmatic-level plan such as an LRMP. See 43 C.F.R. § 1601.0-6 ("Approval of a resource management plan is considered a major Federal action significantly affecting the quality of the human environment. The environmental analysis of alternatives and the proposed plan shall be accomplished as part of the resource management planning process "). The 2004 Framework is not, in itself, an LRMP; rather, it is an amendment to an LRMP. Some amendments to LRMPs may be so insignificant that they do not require preparation of an EIS. But the 2004 Framework is a fundamental revision of the Sierra Nevada Forest Plan. The Forest Service does not argue that an EIS is not required. But the Forest Service does argue that, because of the programmatic nature of the 2004 Framework, it is not required to perform an analysis of environmental consequences for the individual species of fish.

The required level of analysis in an EIS is different for programmatic and site-specific plans. We wrote in *Friends of Yosemite Valley v. Norton*, 348 F.3d 789 (9th Cir. 2003):

An agency's planning and management decisions may occur at two distinct administrative levels:

(1) the "programmatic level" at which the [agency] develops alternative management scenarios responsive to public concerns, analyzes the costs, benefits and consequences of each alternative in an [EIS], and adopts an amendable [management] plan to guide management of multiple use resources; and (2) the implementation stage during which individual site specific projects, consistent with the [management] plan, are proposed and assessed.

Ecology Ctr., Inc. v. United States Forest Serv., 192 F.3d 922, 923, n.2 (9th Cir. 1999). An EIS for a programmatic plan . . . must provide 'sufficient detail to foster informed decision-making,' but 'site-specific impacts need not be fully evaluated until a critical decision has been made to act on site development." N. Alaska Envtl. Ctr. v. Lujan, 961 F.2d 886, 890-91 (9th Cir. 1992). . . .

Although NEPA requires that the [agency] evaluate the consequences of its action at an early stage in the project's planning process, that requirement is tempered by (1) 'the statutory command that [a reviewing court] focus upon a proposal's parameters as the agency defines them,' and (2) 'the preference to defer detailed analysis until a concrete development proposal crystallized the dimensions of a project's probable environmental consequences.' [California v. Block, 690 F.2d 753, 761 (9th Cir. 1982)].

Id. at 800-01.

[5] Regardless of whether a programmatic or site-specific plan is at issue, NEPA requires that an EIS analyze environmental consequences of a proposed plan as soon as it is "reasonably possible" to do so. *Kern*, 284 F.3d at 1072. At issue in *Kern* were two things: an EIS for a Resource Management Plan ("RMP") for the Coos Bay District in Oregon, and an Environmental Assessment ("EA") for a site-specific project in that district. The RMP in *Kern* was a programmatic plan, like the LRMP in the case before us. We wrote:

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 EA is prepared for a site-specific program proposed pursuant to an RMP. "[T]he purpose of an [EIS] is to evaluate the possibilities in light of current and contemplated plans and to produce an informed estimate of the environmental consequences Drafting an [EIS] necessarily involves some degree of forecasting." City of Davis v. Coleman, 521 F.2d 661, 676 (9th Cir. 1975) (emphasis added). If an agency were to defer analysis . . . of environmental consequences in an RMP, based on a promise to perform a comparable analysis in connection with later site-specific projects, no environmental consequences would ever need to be addressed in an EIS at the RMP level if comparable consequences might arise, but on a smaller scale, from a later sitespecific action proposed pursuant to the RMP.

Once an agency has an obligation to prepare an EIS, the scope of its analysis of environmental consequences in that EIS must be appropriate to the action in question. 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. See Save Our Ecosystems v. Clark, 747 F.2d 1240, 1246 n.9 (9th Cir. 1984) ("Reasonable forecasting and speculation is . . . implicit in NEPA, and we

must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry," quoting Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1092 (D.C. Cir. 1973)). If it is reasonably possible to analyze the environmental consequences in an EIS for an RMP, the agency is required to perform that analysis. The EIS analysis may be more general than a subsequent EA analysis, and it may turn out that a particular environmental consequence must be analyzed in both the EIS and the EA. But an earlier EIS analysis will not have been wasted effort, for it will guide the EA analysis and, to the extent appropriate, permit "tiering" by the EA to the EIS in order to avoid wasteful duplication.

Id. at 1072 (emphasis added). See also 40 C.F.R. § 1501.2 ("Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts."); New Mexico ex rel. Richardson v. Bur. of Land Mgmt., 565 F.3d 683, 707-08, 716 (10th Cir. 2009) (relying on Kern to find NEPA violation with respect to programmatic EIS).

Our dissenting colleague contends that we overruled *Kern* with respect to programmatic-level plans in our en banc decision in *Lands Council II*, 537 F.3d 981. We do not believe that *Lands Council II* overruled the "reasonably possible" requirement of *Kern*. At issue in *Lands Council II* was an EIS for a site-specific project. In our en banc opinion, we specifically overruled *Ecology Center, Inc. v. Austin*, 430 F.3d 1057 (9th Cir. 2005), *cert. denied sub nom. Mineral County v. Ecology Ctr., Inc.*, 549 U.S. 1111 (2007). Our holding in *Lands Council II* was that the analysis in the site-specific EIS at issue was sufficiently supported by studies and on-theground analysis. Our opinion nowhere mentioned *Kern*,

nowhere mentioned a programmatic EIS, and nowhere suggested that environmental consequences need not be analyzed in a programmatic EIS if it is "reasonably possible" to perform that analysis.

Nor does the Forest Service believe that Lands Council II overruled the "reasonably possible" requirement of Kern. The Forest Service nowhere contends that we wrongly decided Kern, or that Lands Council II overruled Kern's "reasonably possible" requirement. The Forest Service recognizes in its brief that Kern requires it to perform reasonably possible analyses of environmental consequences in a programmatic EIS. See Appellee's Br. at 25 ("Pacific Rivers correctly notes that this Court has held [in Kern] that a programmatic EIS should analyze environmental consequences where 'reasonably possible." "). The Forest Service argues under Lands Council II that a court owes deference to its determination of what is reasonably possible because, in its view, "[w]hat scientific analysis is 'reasonably possible' at the programmatic stage is a methodological question within the expertise of the agency." Id. But the Forest Service nowhere argues that it need not comply with Kern.

The 2004 EIS at issue in this case recommends extensive changes to the 2001 Framework and even more extensive changes to the underlying Sierra Nevada Forest Plan. We have described the principal changes above. Briefly, they include harvesting 4.9 billion more board feet of timber than under the 2001 Framework (6.4 billion more than under the Forest Plan). They include logging and burning near streams that would not have been permitted under the 2001 Framework. They include the construction of 90 more miles of new roads than under the 2001 Framework (115 more miles than under the Forest Plan), and reconstruction of 855 more miles of existing roads than under the 2001 Framework (1,520 more miles than under the Forest Plan). And they include reduction of restrictions on grazing by commercial and recreational stock.

[6] The 2004 EIS contains no analysis of environmental consequences of these changes on individual fish species in the Sierra. The 2004 EIS promises, in Section 4.2.3 ("Aquatic, Riparian, and Meadow Ecosystems"), that it will provide such an analysis. The EIS states, "Effects of the alternatives on species dependant on *aquatic*, riparian, and meadow habitats are explained elsewhere in this [EIS] (Section 4.3.2)." (Emphasis added). But that promise is not fulfilled. Section 4.3.2 contains 67 pages of analysis of the environmental consequences of the framework for a number of individual species of mammals, birds and amphibians who are dependant on riparian and meadow habitats in the Sierras. But nowhere in that section (or anywhere else in the 2004 EIS) is there any analysis of individual species of fish. The explicit promise to analyze effects "on species dependent on aquatic . . . habitats" in Section 4.3.2, and the absence of any such analysis in that section (or anywhere else), is puzzling. It is possible that the absence of the promised analysis is nothing more than a simple mistake. But if a mistake, it was a mistake that was specifically brought to the attention of the Forest Service in the letter written by its Washington staff. As described above, that letter stated, "There needs to be a discussion of the effects of the new alternatives on riparian ecosystems, streams and fisheries."

In striking contrast to the 2004 EIS, the 2001 EIS contained 64 pages of detailed analysis of environmental consequences of the 2001 Framework on individual fish species. The 2001 EIS devoted 28 pages to individualized analyses of nine "federally threatened and endangered fish species" — the Little Kern Golden Trout, the Paiute Cutthroat Trout, the Lahontan Cutthroat Trout, the Modoc Sucker, the Warner Sucker, the Shortnose and Lost River Suckers, the Central Valley Chinook Salmon, and the Central Valley Steelhead Trout. It then devoted 21 pages to individualized analyses of 11 "sensitive fish species" — the Goose Lake Lamprey, the Fall Run Chinook Salmon, the Eagle Lake Rainbow Trout, the Volcano Creek Golden Trout, the Goose Lake Redband Trout, the

Warner Valley Redband Trout, the Goose Lake Sucker, the Lahontan Lake Tui Chub, the Goose Lake Tui Chub, and the Hardhead. Finally, it devoted 13 pages to individualized analyses of 14 "moderate and high vulnerability fish species" — the Kern Brook Lamprey, the Pacific Lamprey, the Kern River Rainbow Trout, the Owens Sucker, the Mountain Sucker, the Eagle Lake Tui Chub, the Pit River Tui Chub, the Sacramento Hitch, the Owens Speckled Dace, the Pit River Roach, the San Joaquin Roach, and the Rough Sculpin.

The 2001 EIS analyzed the environmental consequences to fish of each of the eight alternatives identified in the EIS. See, e.g., 2001 EIS, vol. 3, ch. 3, at 262 ("Timber harvesting may be conducted in riparian areas, following different guidelines, under Alternatives 3, 4, 6, 7, and Modified 8. Alternatives 3 and 5 prohibit road building in riparian zones; Alternative 5 further addresses negative effects of roads on streams by requiring that failed road crossings and culverts be identified and have priority for rehabilitation."); see also id. at 63, 122 (same). The 2001 EIS also described the environmental consequences of grazing. See, e.g., id. ("One of the greatest risk factors, within the control of the Forest Service, to Forest Service Sensitive fish species in the western United States has been the degradation of the aquatic environment, especially those resulting from long term livestock grazing."); see also id. at 63, 122 (same).

The 2001 EIS also analyzed particular environmental risks for individual species of fish. For example, for both Paiute and Lahontan Cutthroat Trout, "risk factors" included "the immediate loss of individual fish. . . specific habitat features such as undercut banks use[d] for cover, increases in sedimentation leading to changes in spawning bed capacity, and the loss of riparian vegetation necessary to maintain adequate temperature regime[s]." For Shortnose and Lost River Suckers, risk factors included "[d]ecreases in water quality resulting from timber harvest, dredging activities, removal of riparian vegetation, and livestock grazing." For Central Val-

ley Steelhead, "habitat destruction" was listed as a "risk factor." The 2001 EIS noted that "timber harvest, road building, agriculture, livestock grazing, and urban development" all "affect[] steelhead habitat." For Volcano Creek Golden Trout, risk factors included "increases in sedimentation leading to changes in spawning bed capacity, and the loss of riparian vegetation necessary to maintain adequate temperature regime. The risk factors identified are primarily a result of historic and current grazing practices." For Goose Lake Suckers, risk factors included the fact that "many of the streams have experienced some habitat loss due to the effects of logging, grazing and other factors that can degrade watersheds."

The adequacy of the 2001 EIS with respect to fish is not at issue. What is at issue is the adequacy of the 2004 EIS. Whether or not the analysis in the 2001 EIS was adequate (a question that is not before us), the 2001 EIS shows that an analysis of environmental consequences of the 2004 Framework for individual species of fish was "reasonably possible." There is no explanation in the 2004 EIS of why it was not reasonably possible to provide any analysis whatsoever of environmental consequence for individual species of fish, when an extensive analysis had been provided in the 2001 EIS. There is also no explanation in the 2004 EIS of why it was "reasonably possible" to provide an extensive analysis of environmental consequences to individual species of mammals, birds, and amphibians in 2004, but not reasonably possible to provide any analysis whatsoever of environmental consequences to individual species of fish in 2004.

An agency has flexibility in deciding when to perform environmental analyses. But an environmental analysis must "provide 'sufficient detail to foster informed decision-making,' "Friends of Yosemite Valley, 348 F.3d at 800 (citation omitted), and so cannot be unreasonably postponed. In 2002, the Council on Environmental Quality ("CEQ") established a Task Force to review agency practices under NEPA. The Task Force wrote in its September 2003 report to CEQ,

"Reliance on programmatic NEPA documents has resulted in public and regulatory agency concern that programmatic NEPA documents often play a 'shell game' of when and where deferred issues will be addressed, undermining agency credibility and trust." THE NEPA TASK FORCE, MODERNIZING **NEPA IMPLEMENTATION** 39 (2003),available http://ceq.hss.doe.gov/ntf/report/frontmats.pdf. An agency's compliance with the "reasonably possible" requirement in a programmatic EIS, resulting in an appropriate level of environmental analysis, ensures that a "shell game" or the appearance of such a game is avoided. Judicial review under the arbitrary and capricious standard of the Administrative Procedure Act, 5 U.S.C. § § 706(2)(A), in turn ensures that an agency does not improperly evade its responsibility to perform an environmental analysis when such an analysis is "reasonably possible."

In some cases, the appropriate level of environmental analysis in a programmatic EIS is fairly debatable. In such cases, our obligation is to defer to the expertise of the agency. But in this case the Forest Service has largely resolved the debate for us. In its 2001 EIS, the Forest Service performed an extensive analysis of the likely environmental impact of the 2001 Framework, including 64 pages of detailed analysis of the likely impact on individual fish species. In stark contrast, the Forest Service performed no analysis whatsoever in its 2004 EIS of the likely impact of the 2004 Framework on fish. The Forest Service provided no analysis despite the fact that the 2004 Framework allows much more logging, burning, road construction, and grazing than the 2001 Framework, and despite the fact that it had provided a detailed analysis in a programmatic EIS only three years earlier.

We do not require the Forest Service to provide in the 2004 EIS precisely the same level of analysis as in its 2001 EIS. We recognize that it may be appropriate to have fewer than 64 pages of detailed analysis of environmental consequences for individual species of fish in the 2004 EIS. Indeed, if the

Forest Service had explained its reasons for entirely omitting any analysis of the impact of the 2004 Framework on individual species of fish, it is conceivable that it could have convinced us that there is good reason entirely to postpone such analysis until it makes a site-specific proposal. But the Forest Service has provided no explanation. Compare 40 C.F.R. § 1502.22 (requiring that an agency "always make clear" if it lacks information to conduct environmental analysis). The Forest Service has provided almost the opposite of an explanation, for it promised such an analysis and then failed to provide it. As we noted above, Section 4.2.3. of the 2004 EIS promises an analysis of the "[e]ffects of the alternatives on species dependent on aquatic, riparian, and meadow habitats" in Section 4.3.2. Section 4.3.2 contains a detailed analysis of the environmental effects on individual species of mammals, birds and amphibians. But Section 4.3.2. contains no analysis whatsoever of individual species of fish, even though fish are the quintessential "species dependant on aquatic . . . habitat[]."

[7] In light of the extensive analysis of the environmental consequences on individual fish species in the 2001 EIS, and of the extensive analysis of the environmental consequences on individual species of mammals, birds, and amphibians in the 2004 EIS, we conclude, contrary to the Forest Service's contention, that it was "reasonably possible" to provide some analysis of the environmental consequences on individual fish species in the 2004 EIS. The failure of the 2004 EIS to provide any such analysis is a failure to comply with the hard look requirement of NEPA.

b. Incorporation by Reference of the Biological Assessment

The Forest Service's fall-back argument is that even if an analysis of environmental consequences of the 2004 Framework for individual fish species was "reasonably possible," the hard-look requirement is satisfied by two Biological

Assessments ("BAs"), incorporated by reference in the 2004 EIS. We disagree.

[8] Section 7 of the Endangered Species Act requires a federal agency to consult with the U.S. Fish and Wildlife Service ("USFWS") if a proposed action by that agency "may affect" a "listed" species or its critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). Pursuant to Section 7, the Forest Service sent two BAs to the USFWS to initiate the consultation process. The first BA, sent in December 2000, indicated that the alternatives considered in the 2001 EIS "may affect" the Little Kern Golden Trout, California Golden Trout, Lahontan Cutthroat Trout, Paiute Cutthroat Trout, Owen's Tai Chub, Modoc Sucker, Lost River Sucker, Shortnose Sucker, and Warner Sucker. The second BA, sent in July 2003, indicated that the alternatives considered in the 2004 EIS "may affect" all of the species listed in the 2000 BA except the California Golden Trout.

The 2004 EIS does not include the texts of the BAs, but it refers to them twice, once in the text and once in an appendix. First, Section 4.3.1 discusses "Threatened, Endangered, and Proposed Species." With respect to the BAs, it states, in its entirety:

[T]he biological assessment[s] for the [2001 EIS] and for the [2004 EIS] contain a more thorough analysis of effects and was [sic] used in evaluating effects on each species. They are hereby incorporated by reference.

The text does not identify the individual species of fish included in the BAs.

Second, Appendix C of the 2004 EIS is a "Consistency Review" that compares the 2001 and 2004 Frameworks to determine whether a supplemental environmental analysis is needed in the 2004 EIS. With respect to "Endangered, Threat-

ened, and Proposed Species" of fish, the Consistency Review concluded:

Implementing the proposed changes considered in the [2004 EIS] would not be expected to produce appreciably different results. Effects on these species are documented in the *Biological Assessment for the* [2004 EIS], July 30, 2003.

The Appendix identifies the species of fish covered by the 2003 BA.

The Forest Service's argument fails for three independently sufficient reasons.

[9] First, depending on its nature, material should be in the text of an EIS, should be in an appendix to the EIS, or should be incorporated by reference in the EIS. In descending order of importance: (1) Discussion of significant environmental impacts must appear in the text of an EIS. 40 C.F.R. § 1502.1. (2) Material that "substantiates any analysis fundamental to the [EIS]" may appear in an appendix. Id. § 1502.18. (3) Material may be incorporated by reference so long as its omission from the EIS does not "imped[e] agency and public review." Id. § 1502.21; see also Forty Most Asked Questions Concerning CEO's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026, 18033-34 (March 17, 1981) ("FAQs"). If the BAs were intended to serve as the analysis of the environmental consequences of the 2004 Framework for fish, the 2004 EIS needed to do more than incorporate them by reference. They should have been described and analyzed in the text of the 2004 EIS, and the BAs themselves should have been included in an appendix.

This is not a mere formality. The purpose of an EIS is to inform decisionmakers and the general public of the environmental consequences of a proposed federal action. That purpose would be defeated if a critical part of the analysis could be omitted from an EIS and its appendices. The EIS is circulated to the general public. "If at all possible," the appendices are also circulated to the public. *Id.* at 18034 (FAQ 25a). The material that is incorporated by reference is not circulated to the public; it need only be "made available." *Id.* Material that is incorporated by reference must be "briefly described" in the body of the EIS, 40 C.F.R. § 1502.21, but a brief description cannot fulfill the purpose of the EIS if the substance of what is incorporated is an important part of the environmental analysis.

Second, even if they had been fully described and analyzed in the 2004 EIS, the BAs could not have satisfied the "hard look" requirement. The BAs functioned as a trigger to the consultation process required under Section 7 of the Endangered Species Act. They merely enumerated the several species of "listed" fish that may have been affected by the alternatives considered in the 2001 and 2004 EISs. There was no analysis in either of the BAs of the manner or degree to which the alternatives may have affected these fish. To the degree that any analysis was performed, it was performed by the Fish and Wildlife Service when it prepared Biological Opinions in response to the BAs. The 2004 EIS makes no reference, in any form, to either of the Biological Opinions.

Third, even if the BAs could have satisfied the hard look requirement, they applied to only one group of fish species. As described above, the 2001 EIS analyzed the environmental consequences for three groups: (1) "federally threatened and endangered fish species" (9 species); (2) "sensitive fish species" (11 species); and (3) "moderate and high vulnerability fish species" (14 species). The BAs analyzed only the individual species in the first group. They said nothing whatsoever about the individual species in the second and third groups.

2. Amphibians

The 2004 EIS contains an extensive analysis of individual amphibians. It specifically analyzes six species of amphibian:

the California Red-legged Frog, the Foothill Yellow-legged Frog, the Mountain Yellow-legged Frog, the Northern Leopard Frog, the Cascades Frog and the Yosemite Toad. For each species, the 2004 EIS identifies changes between the 2001 and the 2004 Frameworks that are likely to affect that species. The 2004 EIS discusses the impact of livestock grazing, prescribed fire, mechanical fuels treatments and road maintenance.

One of the major differences between the 2001 and 2004 Frameworks is the latter's emphasis on logging, rather than prescribed burning, as a means of reducing the risk of wild-fires. The 2004 EIS describes the impact of the changed emphasis on the Foothill Yellow-legged Frog. It states that the 2001 Framework posed some risk to the frog because prescribed burning often results in the destruction or dispersal of coarse woody debris that the frog uses for shelter. By decreasing the amount of prescribed burning, the 2004 Framework will provide some benefit to the frog. However, the 2004 EIS also identifies the use of mechanical logging as a risk. For example, the frogs sometimes seek shelter beneath parked vehicles. When logging operations begin on any particular day, the vehicles may crush frogs sheltered beneath the tires.

Similarly, the 2004 EIS considers the impact of changed grazing standards on the Yosemite Toad. It states that risk factors to the Yosemite Toad from grazing include

decreased growth rate of tadpoles as a result of increased bacteria from livestock fecal matter; mortality from being buried by livestock feces; reduced vegetative hiding cover for metamorphs, juveniles, and adults, which increases their vulnerability to predation by snakes and birds; and the collapse of rodent burrows from livestock hoof punching, thereby entrapping or burying individuals that use burrows for hiding cover.

The 2004 EIS notes that allowing grazing in meadows that have not yet been surveyed for Yosemite Toads "may contribute to localized extirpations."

The 2004 EIS also discusses a number of mitigation strategies to minimize the environmental consequences of the 2004 Framework. For example, the Forest Service will use "Best Management Practices" for road construction and maintenance. These practices include designing stream crossings and replacement stream crossings for a 100-year flood; designing stream crossings to minimize the diversion of natural stream flow; and avoiding road construction in wetlands and meadows. The Forest Service will also continuously monitor grazing allotments if site-specific changes around Yosemite Toad breeding sites are authorized. The 2004 EIS states that such monitoring will allow the Forest Service to identify and mitigate threats to the Yosemite Toad.

[10] Pacific Rivers contends that the Forest Service is required to provide further analysis of the changes that are authorized under the 2004 Framework. Pacific Rivers' contention stems in part from the Forest Service's decision under the 2004 Framework to delegate significant decisionmaking authority to local managers of amphibian habitats. For example, in a portion of Section 4.2.3 discussing livestock grazing on meadows, the 2004 EIS notes that the new framework makes changes designed to "allow flexibility to design management practices [to] address local conditions." However, we are satisfied that the Forest Service's analysis was sufficient, at this stage of the process, given that the EIS provides significant analysis of the environmental effects on amphibians, and that site-specific projects are not yet at issue.

[11] The Forest Service has repeatedly committed itself to complying with NEPA for site-specific projects that will be proposed under the 2004 Framework. For example, in its brief in this court, it states that "additional NEPA analysis will occur at the project-level." *See* Appellee's Br. at 22. It states,

further, that "because on-the-ground activities such as timber harvest and road, skid trail, and log landing construction would not occur prior to a future site-specific decision, the Forest Service will analyze the site-specific effects of those activities before allowing them." Id. at 24. The brief states, still further, that "[w]hen the Forest Service makes a decision to authorize or reauthorize grazing on an allotment, it conducts a detailed NEPA analysis, where it can examine the effects of the particular proposed grazing, considering. . . the allotment's location..., [and] the timing, scope, and intensity of proposed grazing." *Id.* at 40 (emphasis deleted). The Forest Service makes similar commitments in the 2004 EIS. For example, the 2004 EIS states, "Site-specific decisions will be made on projects in compliance with NEPA. . . following applicable public involvement and administrative appeal procedures." The 2004 EIS states further, "Any site-specific actions taken to implement direction in the Forest Plan Amendment would require compliance with NEPA." We are confident that when the Forest Service proposes to build, reconstruct or decommission roads; to conduct a logging or a prescribed burning operation for fuels management; to allow pack stock and/or saddle stock into Yosemite Toad-occupied meadows; to permit commercial livestock to graze near Yosemite Toad breeding and rearing sites; or to use pesticides in a riparian conservation area, that it will fully comply with the NEPA requirements applicable to such site-specific projects.

Conclusion

In Lands Council II, we wrote that we will hold that an agency has acted in an arbitrary and capricious manner in preparing an EIS when it has "'entirely failed to consider an important aspect of the problem.'" 537 F.3d at 987. In this case, the Forest Service "entirely failed to consider" environmental consequences of the 2004 Framework on individual species of fish. Given the detailed 64-page analysis of the likely impact on individual species of fish in the 2001 EIS, the

complete lack of such analysis of the likely impact on individual species of fish in the 2004 EIS, and the lack of any explanation in the 2004 EIS why it is not "reasonably possible" to perform some level of analysis of such impact, we have no choice but to conclude that the Forest Service failed to take the requisite "hard look" at environmental consequences of the 2004 Framework for fish.

[12] We hold that the Forest Service failed to take a hard look at environmental consequences on fish in the 2004 EIS, in violation of NEPA. We hold that the Forest Service did take a hard look at environmental consequences on amphibians in the 2004 EIS, in compliance with NEPA. We therefore reverse in part and affirm in part, and remand to the district court.

REVERSED in part, **AFFIRMED** in part, and **REMANDED**. Costs to Plaintiff-Appellant.

N. R. SMITH, Circuit Judge, dissenting:

The majority "conclude[s], contrary to the Forest Service's contention, that it was 'reasonably possible' to provide some analysis of the environmental consequences on individual fish species in the 2004 EIS," and thus that the agency's decision not to provide this analysis "as soon as it [was] 'reasonably possible' to do so" was arbitrary and capricious. Maj. Op. 1021-22, 1029. In doing so, the majority makes two fundamental errors: First, it reinvents the arbitrary and capricious standard of review, transforming it from an appropriately deferential standard to one freely allowing courts to substitute their judgments for that of the agency. In doing so, the majority disregards our circuit's long-standing precedent holding that an agency's timing of analysis required by the National Environmental Policy Act (NEPA) is not arbitrary and capricious if it is performed before a critical commitment of

resources occurs. The majority instead creates an unclear rule based on "reasonable possibility" that imposes additional procedures not required by NEPA on the Forest Service. Such a rule "leave[s] the agencies uncertain as to their procedural duties under NEPA, . . . invite[s] judicial involvement in the day-to-day decisionmaking process of the agencies, and . . . invite[s] litigation." *Kleppe v. Sierra Club*, 427 U.S. 390, 406 (1976).

Second, the majority ignores the tiering framework created by NEPA. Because the majority ignores such framework, it fails to differentiate between a site-specific environmental impact statement ("EIS") and a programmatic EIS that focuses on high-level policy decisions. Under NEPA regulations on tiering and Ninth Circuit precedent, a programmatic EIS requires less detailed analysis than a site-specific EIS. Therefore, agencies are allowed to defer in-depth analysis until site-specific projects have been identified. Furthermore, agencies are given wide latitude in the tiering methodology they choose to implement, so long as the programmatic EIS allows for informed decision-making. As a result, courts owe a high level of deference to the methodological choices of the agency.

Because the majority's opinion amounts to an inappropriate and substantial shift in our NEPA jurisprudence, I must dissent.

I. STANDARD OF REVIEW

Congress enacted NEPA to require agencies to produce an EIS whenever they engage in a major action that could significantly affect the environment. 42 U.S.C. § 4332(2)(C). However, Congress also enacted the Administrative Procedure Act (APA), which governs our review of an agency's actions. Under the APA, we must employ a highly deferential standard of review when reviewing the Forest Service's actions in this case. 5 U.S.C. § 706(2)(A). Unless the Forest Service's action

is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," we may not set it aside. *Id*.

In Lands Council II, a unanimous en banc decision, we explained that "[r]eview under the arbitrary and capricious standard 'is narrow, and we do not substitute our judgment for that of the agency.' "Lands Council v. McNair (Lands Council II), 537 F.3d 981, 987 (9th Cir. 2008) (en banc) (alteration in original omitted) (quoting Earth Island Inst. v. U.S. Forest Serv., 442 F.3d 1147, 1156 (9th Cir. 2006), abrogated on other grounds by Winter v. Natural Res. Def. Council, 555 U.S. 7 (2008)). We also noted that our circuit's "environmental jurisprudence ha[d], at times, shifted away from the appropriate standard of review," prior to 2008. Id. at 988.

Although Lands Council II only explicitly overruled Ecology Center, Inc. v. Austin, 430 F.3d 1057 (9th Cir. 2005), explaining that Ecology Center was a case illustrative of this error, our correction extended beyond that solitary case. We referred to the shift in our jurisprudence occurring "in recent years," which clearly alludes to multiple incorrect decisions. Lands Council II, 537 F.3d at 988. Our correction also dealt with the deference owed to agencies under our "appropriate standard of review" in general, id., rather than just regarding studies and on-the-ground analysis, as the majority argues, Maj. Op. 1023-24. We observed that previous decisions committed "key errors" by imposing on agencies additional "requirement[s] not found in any relevant statute or regulation" and by showing insufficient deference to agencies and "their methodological choices." Lands Council II, 537 F.3d at 991.

Therefore, we renounced this incorrect jurisprudence where we engaged in "fine-grained" assessments of agency action. *Id.* at 993. We instead observed that this was not the proper role for courts. *Id.* Rather, "our proper role is simply to ensure that the Forest Service made no 'clear error of judgment' that would render its action 'arbitrary and capricious.'" *Id.* (quoting *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378

(1989)). The majority relies on cases decided prior to 2008 that suggest a less deferential role for courts. However, *Lands Council II* has irrevocably changed the legal landscape by setting forth the high level of deference owed by courts to agency action.

Accordingly, an agency's decision can be set aside "only if the agency relied on factors Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation 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." *Id.* at 987 (internal quotation marks omitted) (emphasis added); *see also Sierra Club v. U.S. Envtl. Prot. Agency*, 346 F.3d 955, 961 (9th Cir. 2003).

The majority argues that "the Forest Service 'entirely failed to consider' environmental consequences of the 2004 Framework on individual species of fish." Maj. Op. 1035. But "[w]hether an agency has overlooked 'an important aspect of the problem,' . . . turns on what a relevant substantive statute makes 'important.' " Or. Natural Res. Council v. Thomas, 92 F.3d 792, 798 (9th Cir. 1996) (quoting *Motor Vehicle Mfrs*. Ass'n v. State Farm Mut., 463 U.S. 29, 43 (1983)). As discussed below in Part II, NEPA is the relevant statute. NEPA does not require site specific analysis be considered at the programmatic EIS stage. Rather, NEPA encourages the deferral of such analysis until the issues are ripe and analyzing them will be most meaningful. Thus, the Forest Service cannot have failed to consider an aspect of the problem required by NEPA by following NEPA's tiered analysis structure and deferring specific analysis.

In addition, though the majority pays lip service to *Lands Council II*'s deferential standard of review, the majority relies on *Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062 (9th Cir. 2002) to engage in the same type of "fine-grained"

analysis that was rebuked in *Lands Council II*. Specifically, the majority demands that the agency provide whatever analysis the majority determines is "reasonably possible" "as soon as it can reasonably be done." *Id.* at 1072. However, the majority is unable to provide any support for this rule for at least two reasons.

First, relying on *Kern* to require a programmatic EIS to include reasonably possible site-specific analysis as soon as reasonably possible stretches the language from *Kern* far beyond the facts of the case.² *Kern* did deal with a programmatic EIS. However, the agency actions at issue there were site-specific timber sales, constituting a critical commitment

¹The majority attempts to argue that the Forest Service recognizes that Kern is the correct rule. Maj. Op. 1024 (citing Appellee's Br. at 25). However, the Forest Service merely admitted that Pacific Rivers was "correct[]" in how it articulated the holding of Kern. In the same paragraph, the Forest Service argues that the determination of what analysis should be given in a programmatic EIS is "a methodological question within the expertise of the agency." Appellee's Br. at 25. Furthermore, even if the Forest Service did make a concession about a question of law, there is "no reason why we should make what we think would be an erroneous decision, because the applicable law was not insisted upon by one of the parties." United States v. Miller, 822 F.2d 828, 832 (9th Cir. 1987) (quoting Smith Engineering Co. v. Rice, 102 F.2d 492, 499 (9th Cir. 1938)). "The rule has been repeated in a variety of circumstances. Even if a concession is made by the government, we are not bound by the government's 'erroneous view of the law." Id. (quoting Flamingo Resort, Inc. v. United States, 664 F.2d 1387, 1391 n. 5 (9th Cir. 1982)).

²It is also worth noting that the "as soon as it can reasonably be done" language appears to have been created whole cloth by the court in *Kern. Id.* at 1072. This is also true of *Kern*'s language, with no citation, asserting that "[i]f it is reasonably possible to analyze the environmental consequences in an EIS. . . , the agency is required to perform that analysis." *Id.* Until now, this language has yet to be quoted by a subsequent Ninth Circuit appellate case. Indeed, the only case the majority is able to "dig up" that applies *Kern*'s rule is from the Tenth Circuit. *See* Maj. Op. 1023 (citing *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683, 707-08, 716 (10th Cir. 2009)). Even in the context of the facts of *Kern*, then, this "reasonably possible" rule appears to be a departure from our established precedent.

of resources. Id. at 1069 ("A 'concrete plan,' a 'specific undertaking,' and a 'site-specific program' incorporating the Guidelines, such as we anticipated in [a previous case], are now before us."). The programmatic EIS in Kern had specifically deferred analysis of specific actions to future NEPA analysis. Id. at 1074. Rather than strike down this deferral as necessarily arbitrary and capricious, the Kern court merely looked to the subsequent EA to see whether the EA had sufficiently analyzed the site-specific action. *Id.* ("The second sentence [in the programmatic EIS] is not an analysis, but rather a promise of a later site-specific analysis to be performed in connection with specific projects 'within the range of the Port-Orford-cedar.' The revised EA for the Sandy-Remote Analysis Area is such a site-specific analysis. The adequacy of that EA has also been challenged by ONRC. We now turn to that question.").

Thus, *Kern* does not support the proposition that a programmatic EIS must include *any* site-specific analysis as soon as reasonably possible if no critical commitments of resources have occurred. *Kern* is rather inapposite to such a rule. Thus, applying the "reasonably possible" rule to a programmatic EIS that does not contemplate critical commitments of resources is not only unsupported by *Kern*'s holding, it also eviscerates the NEPA tiering framework discussed in Part II.

Second, such a rule, particularly when applied to a programmatic EIS, constitutes a dramatic departure from this circuit's precedent regarding arbitrary and capricious review. Our long-standing rule has always been that "NEPA requires a full evaluation of site-specific impacts *only when* a 'critical decision' has been made to act on site development—*i.e.*, when 'the agency proposes to make an irreversible and irretrievable commitment of the availability of resources to [a] project at a particular site.' " *Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 801 (9th Cir. 2003) (quoting *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982)). Until that "threshold" point, we are required to defer to the methodolog-

ical choices of the agency regarding the timing of when site-specific analysis can reasonably be done. *Block*, 690 F.2d at 761.

The majority is correct that NEPA regulations encourage agencies to "integrate the NEPA process with other planning at the earliest possible time." Maj. Op. 1023 (quoting 40 C.F.R. § 1501.2). But "this court has interpreted these regulations as requiring agencies to prepare NEPA documents, such as . . . an EIS, 'before any irreversible and irretrievable commitment of resources." Metcalf v. Daley, 214 F.3d 1135, 1143 (9th Cir. 2000). This rule is derived from the text of NEPA itself. See Conner v. Burford, 848 F.2d 1441, 1446 n.13 (9th Cir. 1988) ("The 'irreversible and irretrievable commitment of resources' criterion is derived from [NEPA], which requires an EIS to include a statement of 'any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.' "). This rule has also proved useful, as explained by environmental law scholars, because "without inside knowledge, [courts] really cannot know the status of various initiatives under consideration" James Salzman and Barton H. Thompson, Jr., Environmental Law and Policy 328 (3d ed. 2010). Thus, "to provide a bright line standard" for "challenging the timing of EIS preparation . . . courts have required that preparation of an EIS commence 'before [an] irreversible and irretrievable commitment of resources." Id. at 328-29 (quoting Environmental Defense Fund, Inc. v. Andrus, 596 F.2d 848, 852 (9th Cir. 1979)).

Consequently, in multiple cases, we have explained that an agency's timing of its analysis becomes arbitrary and capricious only if the NEPA documents are prepared after an irreversible and irretrievable commitment of resources has occurred. See, e.g., Native Ecosystems Council v. Dombeck, 304 F.3d 886, 893 (9th Cir. 2002) ("[T]he issue we must decide here is whether the Federal Defendants prepared the EA too late in the decision-making process, i.e., after making

an irreversible and irretrievable commitment of resources." (quoting *Metcalf*, 214 F.3d at 1143)). On the other hand, we have held that an agency is "free to decide *not* to [provide NEPA analysis] up until the time it issued its Decision Notice for the" specific commitment of resources. *Id.* at 893 (emphasis in original). In other words, an agency cannot have entirely failed to consider an aspect of a problem before a critical commitment of resources has taken place, because the agency still has an opportunity up to that point to provide the necessary analysis. Accordingly, whether analysis is "reasonably possible" and was provided "as soon as it is reasonably possible" is *wholly irrelevant* to the inquiry of whether the timing of the agency's analysis was arbitrary and capricious.

The majority cites, but ignores, precedent upholding this critical commitment of resources threshold. See, e.g., Maj. Op. 1020-21 (citing Friends of Yosemite Valley, 348 F.3d at 800). The majority instead requires its own preferred timing for NEPA analysis. Essentially, the majority misunderstands that there is a wide range of permissible agency action between what courts hope for as ideal agency actions, and actions that fall below a much lower threshold, becoming arbitrary and capricious. See F.C.C. v. Fox Television Stations, Inc., ___ U.S. ___, 129 S. Ct. 1800, 1810 (2009) (under arbitrary and capricious review, courts "should 'uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." (quoting Bowman Transp., Inc. v. Arkansas-Best Freight System, Inc., 419 U.S. 281, 286 (1974))); Texas Clinical Labs, Inc. v. Sebelius, 612 F.3d 771, 775 (5th Cir. 2010) ("An agency's decision need not be ideal or even, perhaps, correct so long as not arbitrary or capricious and so long as the agency gave at least minimal consideration to the relevant facts as contained in the record." (internal quotation marks omitted)). The majority's proposed rule would turn arbitrary and capricious review on its head and allow courts to keep agencies on a tight leash, directing agencies based on what courts view as best, as illustrated by the majority's decision in this case. While there are certainly times when I would disagree with quality or timing of an agency's analysis and would enjoy dictating my own agenda, arbitrary and capricious review simply provides courts with no warrant to do so.

In the present case, it is undisputed that the Forest service has not made a critical commitment of resources regarding any site-specific projects. The 2004 Framework "do[es] not provide final authorization for any activity," and "subsequent and full environmental review [of these site-specific projects] is contemplated," *Friends of Yosemite Valley*, 348 F.3d at 801.4 It only establishes the standards and guidelines under which future projects permitting such actions must occur. Thus, the Forest Service's timing of analysis has not reached the brightline threshold upheld by our precedent, and the Forest Service's decision to defer more specific analysis regarding fish cannot be arbitrary and capricious.

II. THE FOREST SERVICE APPROPRIATELY UTILIZED A TIERED ANALYSIS STRUCTURE

Because it is irrelevant whether the Forest Service provided a reasonably possible amount of analysis as soon as reasonably possible, the appropriate issues to review are actually 1) whether the agency's use of a tiered analysis structure was arbitrary and capricious, and 2) whether the amount of highlevel analysis in the current programmatic EIS was sufficient to engage in informed decision-making regarding broad policies affecting all species, including fish.

³United States Dept. of Agriculture, Forest Service, *Record of Decision*, *Sierra Nevada Forest Plan Amendment, Final Supplemental Environmental Impact Statement* 24 (January 2004) [hereinafter Record of Decision].

⁴See also WildWest Inst. v. Bull, 547 F.3d 1162, 1168 (9th Cir. 2008) (holding that NEPA analysis need only be performed before there is "any irreversible and irretrievable commitment of resources," and thus the Forest Service's decision to pre-mark trees did not irretrievably commit the Forest Service to a specific course of action and was not arbitrary and capricious).

A. The agency's use of a tiered analysis structure to defer in-depth analysis until concrete, site-specific projects were planned was not arbitrary and capricious.

The agency's methodological decision to utilize a tiered EIS approach and defer in-depth analysis of site-specific projects was not only reasonable, but it is also encouraged by the Council on Environmental Quality's⁵ (CEQ) regulations for implementing NEPA. These regulations explain "[a]gencies are encouraged to tier their environmental impact statements to eliminate repetitive discussions of the same issues and to focus on the actual issues ripe for decision at each level of environmental review." 40 C.F.R. § 1502.20 (citations omitted) (emphasis added). The term "tiering" refers to "the coverage of general matters in broader environmental impact statements (such as national program or policy statements)" subsequently followed by "narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorby reference the general discussions concentrating solely on the issues specific to the statement subsequently prepared." 40 C.F.R. § 1508.28. These regulations explain that tiering is appropriate when the sequence of analysis moves from "a program, plan, or policy environmental impact statement . . . to a site-specific statement or analysis." § 1508.28(a).

Agencies have a wide range of discretion in determining how to implement their tiering strategy. In a 2001 memorandum, Frederick Skaer, Director of the Office of NEPA Facilitation, explained that "we have deliberately stayed away from prescriptive guidelines on how to apply tiering so that each

⁵The CEQ was established under Title II of NEPA and is charged with the task of "formulat[ing] and recommend[ing] national policies to promote the improvement of the quality of the environment." 42 U.S.C. § 4342.

tiered process can be custom designed to the specific situation. You therefore have considerable latitude in the specific tiering approach you utilize to implement the NEPA policy mandate of informed decision-making." Office of NEPA Facilitation, Memorandum on Tiering of the I-70 Project, Kansas City, Missouri to St. Louis, June 18, 2001 (citation omitted); see also Ecology Ctr., Inc. v. Austin, 430 F.3d 1057, 1072 (9th Cir. 2005) (McKeown, J., dissenting) ("The limited nature of this inquiry underscores the latitude in implementation and interpretation that Congress intended for its agents."), overruled on other grounds by Lands Council II, 537 F.3d at 991.

Because the 2004 Framework is a programmatic EIS, that focuses on broad policies and general goals and does not make critical commitments of resources (as discussed in Part I), the Forest Service's decision to utilize a tiered approach and defer more in-depth analysis was clearly a reasonable choice within the agency's discretion. Thus, so long as the programmatic EIS provides sufficient guidelines to foster informed decision-making (as discussed in Part II.B), nothing more can be required of the agency at this stage.

The majority acknowledges this NEPA tiering framework. Maj. Op. 1021-22. Then the majority promptly disregards our precedent and argues that "[r]egardless of whether a programmatic or site-specific plan is at issue, NEPA requires that an EIS analyze environmental consequences of a proposed plan as soon as it is 'reasonably possible' to do so." *Id.* at 1011, 1021-24, 1027-28, 1029, 1036. The majority also argues that the agency was required to perform an "appropriate level of environmental analysis" based on what the majority determines was "reasonably possible." *Id.* at 1011, 1023, 1027-29. The majority observes that the 2001 Framework provided more analysis of specific aquatic species. *Id.* at 1019. The majority also claims that the agency failed to explain why it provided less analysis of fish in the 2004 Framework. *Id.* at 1027. As a result, the majority asserts that this proves the

agency was able to provide more in-depth analysis than it did. *Id.* at 1028-29. Consequently, the majority holds that the agency's lesser amount of analysis of fish in the 2004 Framework was arbitrary and capricious. *Id.* at 1035. The majority's arguments suffer from at least four flaws.

First, this is a classic example of courts imposing additional procedures on agencies that have no basis in statutory or regulatory law. Nowhere in the text of NEPA, or its regulations, is an agency required to provide a similar amount of analysis in the current EIS as was performed in a previous EIS. Both the 2001 and the 2004 Frameworks were programmatic environmental impact statements. The Forest Service voluntarily chose to provide more in-depth analysis in the 2001 Framework than was necessary, but nothing in NEPA requires an agency to provide an equivalent level of analysis for a subsequent EIS. As long as the agency's analysis falls within the wide zone of reasonability, the agency need not provide the most ideal analysis in order to avoid having its decision struck down as arbitrary and capricious. See Dombeck, 304 F.3d at 892 ("We will uphold the Forest Service's decision not to [provide NEPA analysis until a later date] unless that decision was unreasonable."). While it may irritate the majority that the Forest Service did not provide as much detailed analysis in the 2004 EIS as in the 2001 EIS, there is no precedent for the majority's decision to strike down the Forest Service's decision to defer more in-depth analysis until more concrete projects have been identified.

NEPA also does not impose a blanket requirement on agencies to provide as much analysis as the majority determines is reasonably possible "as soon as it can reasonably be done." Maj. Op. 1022 (quoting *Kern*, 284 F.3d at 1072). To the contrary, the NEPA regulations about tiering clearly indicate that delayed analysis is not only allowed, but even preferable in some instances. 40 C.F.R. § 1502.20; *see also Block*, 690 F.2d at 761 (noting that the analysis is more meaningful when a "concrete development proposal crystallizes the dimensions

of a project's probable environmental consequences"); *Ctr. for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1166 (9th Cir. 2003) (NEPA's purpose is "to ensure informed decision-making to the end that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.").

The majority is correct that NEPA is designed to encourage agencies to "integrate the NEPA process with other planning at the earliest possible time." Maj. Op. 1023 (quoting 40 C.F.R. § 1501.2). But, in Friends of Yosemite Valley and other cases, we have recognized that NEPA's encouragement of early analysis is "tempered by (1) 'the statutory command that [a reviewing court] focus upon a proposal's parameters as the agency defines them,' and (2) 'the preference to defer detailed analysis until a concrete development proposal crystallizes the dimensions of a project's probable environmental consequences." 348 F.3d at 800 (quoting Block, 690 F.2d at 761). The majority ignores this tempering effect. Instead, it essentially demands as much analysis for fish as the majority determines is reasonably possible as soon as the agency can provide it, irrespective of the Forest Service's methodological choices and decision to utilize a tiered analysis structure.

Second, the majority's argument comparing the volume of analysis between the 2001 and 2004 Frameworks suffers from the proverbial comparison of apples to oranges. The 2001 Framework contained many more broad-based rules and clear-cut policies that made for easier identification of issues. The 2004 Framework *by design* calls for a flexible approach based on specific conditions, ⁶ and it leaves critical decisions

^{6&}quot;In general, the changes proposed in [the 2004 Framework] are designed to meet the intent of the standards and guidelines in [the previous Framework], but allow flexibility to design management practices [to] address local conditions." United States Dept. of Agriculture, Forest Service, Sierra Nevada Forest Plan Amendment, 1 Final Supplemental Environmental Impact Statement 214 (January 2004) [hereinafter 1 SEIS] (emphasis added) (citation omitted).

to be made when site specific projects are identified. For example, under the previous 2001 EIS, the "spacial location of strategically-placed area treatments" was specifically limited in geographic location to the "upper two-thirds of slopes," whereas the 2004 EIS contains no such geographic limitations. 1 SEIS at 210. Similarly, the 2001 EIS limited compaction in riparian conservation areas to "less than 5% of project activity areas," whereas the 2004 Framework provides "[n]o firm numeric standard[s] . . . , thus allowing for site-specific evaluations." *Id.* As a result, it is not surprising that the 2001 Framework more easily lent itself to more extensive analysis up front.

Third, the majority's insistence on requiring the agency to provide the amount of analysis the majority thinks is appropriate as soon as reasonably possible illustrates a misunderstanding of the tiering framework set forth in the CEQ regulations. These regulations balance the public's need to receive analysis quickly with the public's competing need to receive analysis regarding "actual issues ripe for decision." 40 C.F.R. § 1502.20. To achieve this balance, agencies are given "wide latitude" in choosing the scope of analysis that will occur at different stages of the tiered analysis structure. Office of NEPA Facilitation, Memorandum on Tiering of the I-70 Project, Kansas City, Missouri to St. Louis, June 18, 2001.

The majority correctly observes that the level of analysis may differ depending on the scope of the agency action. Maj. Op. 1011, 1023, 1027-29. But then the majority incorrectly takes it upon itself to determine the scope of the project, based on the quantity and timing of analysis that the majority determines is "reasonably possible." *Id.* at 1011, 1023. This approach not only ignores the wide latitude the NEPA regulations accord agencies in determining how to structure their tiered analysis methodology, it directly contradicts Supreme Court and Ninth Circuit precedent. *See Kleppe*, 427 U.S. at 413 (agencies have discretion to "intelligently determine the scope of environmental analysis and review specific actions

[they] may take"); *Friends of Yosemite Valley*, 348 F.3d at 800 ("[A] reviewing court [must] focus upon a proposal's parameters as the agency defines them" (alteration in original omitted) (quoting *Block*, 690 F.2d at 761)).

As the majority observes, it is true that the CEQ's Task Force has expressed concern that the use of a tiering structure can result in a "shell game" regarding "when and where deferred issues will be addressed." Maj. Op. 1027-28 (citing The Nepa Task Force, Modernizing Nepa Implementation 39 available http://ceq.hss.doe.gov/ntf/report/ (2003),at finalreport.pdf). But the majority ignores that, in the same paragraph discussing this potential "shell game," the Task Force recommends that the CEQ address the problem by creating requirements whereby programmatic documents would "provide a roadmap, explaining where and when deferred issues raised by the public and/or regulatory agencies will be addressed." This potential regulatory solution of requiring a simple roadmap for programmatic analysis is markedly different than the majority's approach of imposing a novel and unclear judicial requirement, destroying an agency's methodological flexibility and requiring whatever analysis the majority thinks is "reasonably possible" to be performed "as soon as it can reasonably be done."

The majority seems to suggest that the Forest Service inappropriately participated in such a "shell game" in this case by providing a "puzzling" and unfulfilled promise to perform specific analysis of individual fish species. Maj. Op. 1025. But, even assuming that the Forest Service was required to follow through on any promises made in the EIS, the Forest Service did not break any promises. As the majority acknowledges, the Forest Service never explicitly promised to analyze individual fish species; it merely explained that the "[e]ffects of the alternatives on species dependent on aquatic, riparian, and meadow habitats" would be "explained elsewhere in th[e] SEIS." 1 SEIS at 207; see also Maj. Op. 1029. The Forest Service clearly delivered on this promise. Specifically, as to

aquatic habitats, Part II.B highlights the Forest Service's extensive analysis regarding how various alternatives would affect aquatic habitats and the corresponding dependent species in general. Moreover, as the majority also notes, the 2004 Framework incorporates by reference two different biological assessments analyzing the consequences of the 2004 EIS on individual fish species. Maj. Op. 1029-30. While the analysis from the biological assessments is likely insufficient for site-specific NEPA analysis regarding a potential critical commitment of resources affecting fish, it further illustrates that the Forest Service did not break its promise to provide at least some analysis of aquatic species in the programmatic EIS.

Fourth, the majority incorrectly asserts that there is "no explanation" for the Forest Service's decision to defer more in-depth analysis of individual fish species. *See*, *e.g.*, Maj. Op. 1027. However, the Forest Service clearly *did* explain its reasons for deferring in depth analysis until more site-specific projects were identified. Specifically, in its Record of Decision, the Forest Service stated,

Our ability to strategically place fuel treatments for optimum effectiveness has been compromised by the set of complicated rules in the [2001 Framework]. The standards and guidelines in that [Framework] are applied at the stand level, rather than by land allocations. . . . Some of the rules are so detailed that they prescribe down to one acre what is allowed, and require measuring change in canopy to ten percent increments, which is not consistently practical with This measurement tools. fine-scale approach limits our ability to make significant progress. . . . [O]ur ability to strategically place fuels treatments on the landscape has been compromised by the complexity of rules [which allows] . . . more habitat [to be] lost to wildfire. . . . This decision is intended to reverse that trend.

Record of Decision at 8-9; see also Appellee's Br. at 6. As a result, the agency explained that the 2004 EIS was being implemented to "assure the most efficient and appropriate use of government resources" Record of Decision at 23-24. The Forest Service primarily argued not that providing more analysis would be entirely impossible, but rather that "there was insufficient information and analytic tools for a meaningful analysis" Appellee's Br. at 48 (emphasis added). Therefore, the majority should have concluded that it was well within the Forest Service's discretion to determine that the benefits of deferring in-depth analysis of aquatic species to provide more meaningful analysis outweighed any delays in information.

If the Forest Service commits to a site-specific project in the future, without engaging in the required level of NEPA analysis, then Pacific Rivers might have a viable NEPA claim. Indeed, it is likely that "[t]he deficiencies noted by the" majority opinion (regarding analysis of fish) "are precisely the omissions the Forest Service will need to correct in order to comply fully with NEPA" at a later time. *Block*, 690 F.2d at 763; *see also N. Alaska Envtl. Ctr. v. Lujan*, 961 F.2d 886, 891 (9th Cir. 1992) (approving a programmatic EIS that deferred detailed analysis until an application for a mining permit was submitted, but noting that "judicial estoppel precludes the Park Service from later arguing that it has no further duty to consider mitigation measures . . .").

Not only has the Forest Service affirmed many times that they plan to engage in further detailed analysis when specific projects are identified,⁷ but we have a legal duty to assume

⁷See, e.g., Record of Decision at 20 ("This [Record of Decision] does not authorize timber sales or any other specific activity on the Sierra Nevada national forests. Site-specific decisions will be made on projects in compliance with NEPA, ESA, and other environmental laws following applicable public involvement and administrative appeal procedures."); United States Dept. of Agriculture, Forest Service, Sierra Nevada Forest

that the agency will perform that analysis. In *Salmon River Concerned Citizens v. Robertson*, we observed that courts should "assume that government agencies will . . . comply with their NEPA obligations in later stages of development." 32 F.3d 1346, 1358 (9th Cir. 1994) (quoting *Conner*, 848 F.2d at 1448).

B. The amount of programmatic, high-level analysis was sufficient to engage in informed decision-making regarding broad policies affecting all species, including fish.

The majority claims that the Forest Service "entirely failed to consider an important aspect of the problem" by not providing in-depth analysis regarding how the 2004 programmatic Framework would affect specific species of fish. Maj. Op. 1035 (citing Lands Council II, 537 F.3d at 987). But here, because the Forest Service chose to utilize a tiered NEPA analysis structure and implement a programmatic EIS, the relevant scope of "the problem" is whether the Forest Service "provide[d] 'sufficient detail to foster informed decisionmaking.' "Friends of Yosemite Valley, 348 F.3d at 800 (quoting Lujan, 961 F.2d at 890-91). As discussed above, the majority is only able to claim otherwise by ignoring the proper stan-

Plan Amendment, 2 Final Supplemental Environmental Impact Statement, Response to Public Comments 66, 67 (January 2004) [hereinafter 2 SEIS] ("Actual locations and miles of roadwork would be determined through project—level planning and analysis."); Id. at 124, 125 ("Any site-specific actions taken to implement direction in the Forest Plan Amendment would require compliance with NEPA. An environmental analysis would be completed to assess the potential impacts of proposed activities on water quality and aquatic and riparian systems. The analysis would also include an assessment of cumulative watershed effects relative to thresholds of concern established for watersheds in the project analysis area."); Appellee's Br. at 49 ("At the project-level, the Forest Service will consider both the synergistic effects of actions proposed within a project, where applicable, as well as the cumulative effects of multiple projects conforming to the Framework, again where applicable.").

dard of review and refusing to defer to the Forest Service's discretion in determining the scope of its analysis. *See Kleppe*, 427 U.S. at 413 (agencies have discretion to "intelligently determine the scope of environmental analysis and review specific actions [they] may take"); *Friends of Yosemite Valley*, 348 F.3d at 800 ("[A] reviewing court [must] focus upon a proposal's parameters as the agency defines them") (alteration in original omitted) (quoting *Block*, 690 F.2d at 761). The scope of analysis in a programmatic EIS can include considerably less detail than in an EIS analyzing a site-specific project. *See, e.g., Res. Ltd., Inc. v. Robertson*, 35 F.3d 1300, 1306 (9th Cir. 1993); *Salmon River*, 32 F.3d at 1357-58; *Block*, 690 F.2d at 761.

Thus, under the Forest Service's tiered-analysis approach, the 2004 EIS provides sufficient high-level standards to guide future on-the-ground decisions affecting fish. These standards generally contemplate the relevant range of potential agency action and the consequences on various habitats in the Sierra Nevada. The 2004 Framework "begins by explaining that cumulative effects were analyzed in detail for the eight alternatives considered in the 2001 Framework." Appellee's Br. at 50. "It then identifies activities that have occurred" since the 2001 Framework, "including soil and water resource improvements, hazardous fuels reductions, wildfire suppression," and road construction. *Id*.

Specifically regarding aquatic habitats (home to fish species), the Framework notes that these are one of the most "degraded of all habitats in the Sierra Nevada," though much of the original problem was related to "lower elevation dams and diversions." 1 SEIS at 3. The EIS observed that "[t]he greatest effects on the [a]quatic, [r]iparian and [m]eadow [e]cosystems will generally be from either mechanical fuel treatments or catastrophic wildfires." *Id.* at 12, 96. "Fires can have extraordinary effects on watershed processes and, as a consequence, significantly influence aquatic organisms and the quality of aquatic habitats in many ways." *Id.* at 208 (citation omitted).

These effects include "reductions in riparian shading and altered streamflows [that] can increase stream temperatures to extreme levels," "[f]looding, surface erosion, and mass wasting . . . due to vegetation loss," and "increases in sedimentation, debris flows, and wood inputs may occur" as well as "[c]omplete channel reorganization." *Id*.

The Forest Service weighed "tradeoffs between potential aquatic ecosystem and water quality impacts from fuel management activities (mechanical treatment and prescribed fire) and risks associated with high severity wildfires." *Id.* (citation omitted). It recognized that "with respect to aquatic ecosystems, there are arguments for and against the use of fuels treatments to reduce the extent and severity of future fires." *Id.* (citation omitted). After providing this analysis, the EIS determined "alternatives that lower the risk of fire and have medium levels of treatment pose the least risk to aquatic and riparian system." *Id.* at 12. Therefore, by allowing increased fuels treatments, the 2004 Framework would reduce the anticipated acres burned by just over 15% from the 2001 Framework. *Id.* at 98.

The Forest Service recognized that this approach "pose[d] higher short-term risks to aquatic resources because it prescribes larger amounts of mechanical treatments and greater treatment intensities." Id. at 12, 97, 215. But the Forest Service concluded that this was mitigated by the expected longterm benefits to aquatic habitats resulting from reducing wildfires. Id. The Forest Service also asserted its intent to reduce any short-term threats through objectives listed in its "Aquatic Management Strategy," best management practices, and goals related to "landscape-level conditions" and "land allocations" that would be applied during "project level analysis." Id. at 12, 97, 207, 210, 215. It was reasonable for the Forest Service to defer more specific analysis of the proposal's effect on aquatic species, because "[p]otential treatment effects on aquatic, riparian and meadow ecosystems are largely a function of the amounts, types, intensities, and locations of treatments and the standards by which they are implemented." *Id.* at 210.

Although the majority correctly notes that the 2004 Framework anticipates considerably more logging in the forests, the majority ignores the fact that much of that logging may never occur. For example, 214 million board feet were offered for sale on average between FY 2000-2002, but only 118 million were actually sold—approximately 55%. *Id.* at 174-75. Similarly, only 58% of the fuel treatments projected under the 2001 Framework were carried out in the first three years of the Framework. *Id.*; Appellee's Br. at 22-23. Therefore, the Forest Service reasonably concluded that it would be inefficient to perform a detailed analysis of the impact of activities that may never take place, and the 2004 EIS contains sufficient analysis of the probable consequences of increased fuel management at the programmatic level.

The 2004 Framework identified roads as another "critical component" of the risk and benefit "tradeoffs" to aquatic species, which include fish. 1 SEIS at 209. The EIS explained that roads are just behind wildfires in their potential effect on "aquatic ecosystems and water quality in forested environments." Id. The EIS cited studies discussing how "roads can deliver more sediment to streams than any other human disturbance in forested environments." Id. (citation omitted). However, the studies also indicated that "surface erosion from roads can be reduced through improved design, construction, and maintenance practices," and "[p]roper road location, drainage, surfacing, and cut slope and fill slope treatments are important in limiting effects." Id. (citation omitted). The Forest Service explained that the proposed "modest reduction in overall road miles, and improved road conditions," subsequently adopted in the 2004 Framework, were some of "the most important aspects of reducing risks to aquatic resources." Id. at 215.

The Forest Service determined that, because many details of actual on-the-ground activities were yet unknown, a more detailed analysis would be appropriately conducted when specific projects were identified. For example, the EIS explained that "actual locations and miles of roadwork [will] be determined through project-level planning and analysis." 2 SEIS at 66. Changing the location of a proposed road by just a few hundred feet could make a substantial difference in the impact it had on riparian areas and on fish. A different location might have significantly different vegetation, soil type, and topography. Changing the location could even place a road in a completely different drainage basin, potentially impacting entirely different species of fish. *See*, *e.g.*, Biological Assessment for SNFPA SEIS 146, July 30, 2003 (Paiute cutthroat trout found only in 14.5 miles of streams).

The EIS explained that "road management does not vary substantially between [the 2001 Framework and the 2004 Framework]. Under both alternatives, the . . . biological effects of roads, as previously described, would be *reduced* across the bioregion" 1 SEIS at 212. The EIS further noted that, under the 2004 Framework, there would be a decrease in the net miles of roads. *Id.* (under the 2004 Framework, "1175 miles would be decommissioned and 115 miles of new road would be constructed"). Although the miles of reconstructed roads would almost double and may have short-term impacts, reconstructed roads would be expected to "improve water quality and aquatic habitat" *Id.*

The 2004 EIS also provided analysis of the effects to watersheds from on-the-ground activity that the Forest Service might permit under the Framework. The Framework explained that, as a broad-based policy, future projects should remain protective of wildlife but strive for more effective reduction of hazardous fuels. *See*, *e.g.*, Appellee's Br. at 6, 9, 36, 54. It also identified activities that have occurred since the 2001 Framework, including soil and water resource improvements, hazardous fuels reductions, wildfire suppression, and road construction. *Id.* at 50. Based on this information, it analyzed combined or synergistic effects of the elements of the

2004 Framework on aquatic ecosystems and species, explaining that the 2001 and 2004 Frameworks are expected to have similar effects, because both alternatives are required to meet soil quality standards. *Id.* at 47-48.

Similarly, the EIS addressed the impacts of grazing with sufficient detail to satisfy NEPA on a programmatic level. As with logging and road construction, the Framework calls for a flexible approach based on specific conditions, rather than a full-scale analysis at this stage. The same 2001 standards will continue to be in effect and "are expected to reduce erosion of meadows and improve aquatic habitat conditions by facilitating the growth of stabilizing vegetation along streams." 1 SEIS at 214. The 2001 and the 2004 Frameworks primarily differ in that changes to utilization and stubble heights may be allowed in the 2004 Framework when current range conditions are "good to excellent" (and after "rigorous[] evaluat[ion]"). Id. Monitoring requirements under this flexible approach will "minimize[] differences in effects on aquatic . . . ecosystems between the [2001 and 2004 Frameworks]." Id.

Thus, after recognizing the general impact that various proposals could have on the environment and the measures that could mitigate those effects in the programmatic EIS, the Forest Service reasonably deferred the detailed analysis of future site-specific projects. Based on this analysis, the Forest Service clearly did not "entirely fail[]" to consider an important aspect of the programmatic analysis required to provide informed decision-making. The majority may have preferred more specific analysis about individual fish species, but such preference is not a justifiable reason under NEPA to disregard the agency's analysis as arbitrary and capricious.

III. CONCLUSION

The agency clearly did not "rel[y] on factors Congress did not intend it to consider" when it utilized the tiered methodol-

ogy encouraged by the CEQ regulations for implementing NEPA. Lands Council II, 537 F.3d at 987. The Forest Service also did not "entirely fail[] to consider an important aspect" of the high level policies set forth in their programmatic EIS. Id. Lastly, the agency clearly did not offer an explanation for their programmatic EIS that is "so implausible" that it cannot "be ascribed to a difference in view or the product of agency expertise." Id. Because we can only overturn an agency's action if the agency committed one of these arbitrary and capricious errors, and because no such error occurred in this case, I would appropriately defer to the Forest Service's reasonable decision and affirm.