

FOR PUBLICATION
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

TE-MOAK TRIBE OF WESTERN
SHOSHONE OF NEVADA; WESTERN
SHOSHONE DEFENSE PROJECT; GREAT
BASIN MINE WATCH,
Plaintiffs-Appellants,

v.

UNITED STATES DEPARTMENT OF THE
INTERIOR; ROBERT V. ABBEY State
Director; GAIL G. GIVENS,
Assistant Field Manager Battle
Mountain Field Office; CLINTON R.
OKE, Assistant Field Manager;
UNITED STATES BUREAU OF LAND
MANAGEMENT,
Defendants-Appellees,

CORTEZ GOLD MINES,
Defendant-intervenor-Appellee.

No. 07-16336
D.C. No.
CV-05-00279-LRH
OPINION

Appeal from the United States District Court
for the District of Nevada
Larry R. Hicks, District Judge, Presiding

Argued and Submitted
January 15, 2009—San Francisco, California

Filed June 18, 2010

Before: Sidney R. Thomas and Richard A. Paez,
Circuit Judges, and David A. Ezra,* District Judge.

*The Honorable David A. Ezra, United States District Judge for the District of Hawaii, sitting by designation.

COUNSEL

Roger Flynn, Jeffery C. Parsons, Western Mining Action Project, Lyons, Colorado, for petitioners Te-Moak Tribe of Western Shoshone of Nevada, Western Shoshone Defense Project, and Great Basin Mine Watch.

Ronald J. Tenpas, Assistant Attorney General, Mark Haag, Attorney, Environment & Natural Resources Division, Department of Justice, Washington, DC, John Steiger, Of Counsel, Office of the Regional Solicitor, United States Department of the Interior, Salt Lake City, Utah, for respon-

dents United States Department of the Interior; Robert V. Abbey, State Director; Gail G. Givens, Assistant Field Manager, Battle Mountain Field Office; Clinton R. Oke, Assistant Field Manager, Elko Field Office; United States Bureau of Land Management.

Robert Tuchman, Thomas F. Cope, Linnea Brown, Holme Roberts & Owen LLP, Denver, Colorado, W. Chris Wicker, Woodburn and Wedge, Reno, Nevada, for respondent-intervenor Cortez Gold Mines.

OPINION

PAEZ, Circuit Judge:

Te-Moak Tribe of Western Shoshone of Nevada, a federally-recognized Indian tribe (“the Tribe”), the Western Shoshone Defense Project (“WSDP”),¹ and Great Basin Mine Watch (“GBMW”)² (collectively, “Plaintiffs”) appeal the district court’s denial of their motion for summary judgment, and the grant of summary judgment to the Department of the Interior (“DOI”), the Bureau of Land Management (“BLM”), several officers of the BLM, and intervenor Cortez Gold Mines, Inc. (“Cortez”) (collectively, “Defendants”).³ Plaintiffs con-

¹The Western Shoshone National Counsel created WSDP “to protect and preserve Western Shoshone rights and homelands for present and future generations based upon cultural and spiritual traditions.”

²GBMW describes itself as “a coalition of environmentalists, ranchers, and Native Americans dedicated to reforming the hardrock mining industry and the agencies that regulate them to protect the land, air, water and Native American resources of the Great Basin.”

³We have jurisdiction to review both the grant of summary judgment to Defendants and the denial of summary judgment to Plaintiffs, because “[t]he grant of summary judgment [to the Defendants] is a final order” *Rogers v. County of San Joaquin*, 487 F.3d 1288, 1294 (9th Cir. 2007) (citing *Jones-Hamilton Co. v. Beazer Materials & Servs., Inc.*, 973 F.2d 688, 694 (9th Cir. 1992)).

tend that the BLM's approval of Cortez's amendment to a plan of operations for an existing mineral exploration project in Nevada violated the National Environmental Policy Act ("NEPA"), the National Historic Preservation Act ("NHPA"), and the Federal Land Policy and Management Act ("FLPMA"). We have jurisdiction pursuant to 28 U.S.C. § 1291. We affirm the district court with respect to Plaintiffs' NHPA and FLPMA claims, and we reverse and remand for further proceedings with respect to one of their NEPA claims.

I. Factual and Procedural Background

This appeal involves Cortez's proposal to amend the plan of operations for an existing mineral exploration project, the Horse Canyon/Cortez Unified Exploration Project ("the HC/CUEP"), located in Lander and Eureka Counties in northeastern Nevada.⁴ The BLM approved the original plan of operations for the HC/CUEP in 2001.⁵ Pursuant to the 2001 plan of operations, Cortez conducted exploration activities in a 30,548-acre area designated for the project ("project area").

The HC/CUEP, in its original and amended plans, is a phased exploration project. Phase I includes 150 drill sites, as close as 200 feet apart, to determine what minerals are in the target areas. Depending on what Cortez discovers, it may move into Phase II of the HC/CUEP, in which there are about 125 drill sites, with three or more drill rigs working in close proximity to one another. Finally, if Cortez chooses to continue exploring, it may move into Phase III, in which Cortez

⁴Although exploration activities under the HC/CUEP may eventually lead to a mining project, the BLM has yet to authorize actual mining in the project area.

⁵The BLM approved the original HC/CUEP plan of operations as an amendment to the Horse Canyon Exploration Project. The HC/CUEP added 16,430 acres to the Horse Canyon Exploration Project by joining it with the Cortez Gold Mine Expansion Project, for a total project area of 30,548 acres.

can use approximately 100 drill holes within the Phase II drill sites' footprints.

Under the original HC/CUEP plan of operations, Cortez was permitted to disturb a total of 50 acres of land within the entire project area over the course of all three phases of the project. In July 2003, Cortez proposed an amendment to the HC/CUEP plan of operations (“the Amendment”) that would permit Cortez to disturb a total of 250 acres throughout the project area—five times the amount approved by the BLM for the original project. Under the Amendment, Cortez’s exploration would proceed according to the same phased operations as outlined in the original HC/CUEP plan of operations, and Cortez could not disturb more than 50 acres at any given time. Cortez estimated that the HC/CUEP as amended would last five years.

Cortez’s exploration activities under the HC/CUEP represent only a small part of a long history of exploration and mining activities in this area of Nevada. Active mining operations have existed since the 1860s, and the mining industry continues to explore the area for further mineral deposits. In addition to the HC/CUEP, Cortez currently operates a number of mines in the area, and Cortez has plans to develop in the near future two mineral deposits as the Pediment/Cortez Hills Mine Project (“the Pediment/Cortez Hills project”).⁶

After Cortez proposed the Amendment in July 2003, the

⁶Cortez first discovered a mineral deposit on the western pediment of Mount Tenabo (“the Pediment Deposit”) in 1993, before the approval of the original HC/CUEP. Cortez originally submitted a proposed plan of operations for the development of the Pediment Deposit in January 2001. The Pediment Deposit is located within the original project area. As part of the approval process for mining the Pediment Deposit, the BLM commissioned cultural surveys and studies of the area. Before the BLM completed the approval process, Cortez discovered another deposit in Cortez Hills and sought approval from the BLM to mine the Pediment Deposit and the deposit in Cortez Hills as one project.

BLM prepared an Environmental Assessment (“EA”) pursuant to NEPA, assessing the environmental and cultural resources of the project area and the potential impacts on the environment. The EA “tiered” to, and thus incorporated, previous environmental impact statements and environmental assessments, including those for the original HC/CUEP and for the South Pipeline Project, another mining project located near the project area.⁷

Although miners have been mining this area for generations, Native Americans have been there much longer. According to their oral history, Te-Moak and other Western Shoshone tribes have inhabited this area since time immemorial, and their religion and culture is inextricably linked to the landscape of the area. The project area is located on their ancestral lands.⁸ Mount Tenabo, located within the project area, is considered a traditional locus of power and source of life for the Western Shoshone, and figures in creation stories and world renewal. The top of Mount Tenabo is used by the Western Shoshone for prayer and meditation and although mining activities have impeded this practice, the association of the top of the mountain to Western Shoshone beliefs, customs, and practices remains. The project area also contains many pinyon pine trees, a source of pine nuts that were once a key component of the Western Shoshone diet and remain a focal point of Western Shoshone culture and ceremony. Although mining has impeded the collection of pine nuts, remnant stands of pinyon pine continue to be used as traditional family gathering areas by contemporary Western Shoshone. Finally, because of the Tribe’s burial traditions, the ancestors of the Western Shoshone are likely buried throughout the project area.

⁷“Tiering refers to the coverage of general matters in broader environmental impact statements . . . with subsequent narrower statements or environmental analyses . . . incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.” 40 C.F.R. § 1508.28.

⁸There is no reservation land in the project area.

As a result of the Western Shoshone's undisputed connection to the land, the BLM has consulted with the Tribe, as required by NEPA and the NHPA, about sites of cultural and religious significance in areas slated for exploration and mining, including areas covered by the HC/CUEP, its predecessor project (the Horse Canyon Exploration Project), and the Pediment Project. This consultation led the BLM to designate two sites within the project area as "properties of cultural and religious importance" or "PCRIs" that are eligible for inclusion on the National Register of Historic Places: (1) Horse Canyon and (2) the top of Mount Tenabo and the "White Cliffs" of Mount Tenabo.

The BLM sent a letter to the Tribe about the Amendment one year after the BLM received Cortez's proposal in July 2003. The BLM noted that there was already extensive documentation of traditional, cultural, and spiritual use sites within or near the project area, but asked the Tribe for help in identifying any additional concerns and in developing any alternatives or methods that might eliminate or reduce potential adverse impacts. The Tribe did not respond to this letter.

About one month after soliciting the Tribe's input, the BLM submitted the draft EA for public comment on September 1, 2004, and sent the Tribe a copy to review. Although the BLM attempted to contact the Tribe by telephone in the middle of September to ascertain whether the Tribe would be commenting on the EA, the Tribe did not respond to those calls. WSDP and GBMW, however, did contact the BLM in early October regarding the proposed action and requested information on the BLM's consultation with the Western Shoshone and the location of drill holes, access roads, and other details of the project. The BLM responded on October 20, 2004, but did not provide the organizations with the requested project details.

The BLM could not provide the organizations with the precise locations of the project's exploration activities because

they were not specified in the proposed Amendment's plan of operations. Instead, the BLM conditionally approved the Amendment, requiring Cortez to provide detailed maps prior to surface-disturbing activities and to follow specific avoidance measures to protect cultural resources. The BLM issued a Decision Record ("DR") and Finding of No Significant Impact ("FONSI") (together a "DR/FONSI") on October 22, 2004.

Plaintiffs petitioned the State Director of the BLM for review of the BLM's DR/FONSI on November 24, 2004. After granting Plaintiffs' request for review, the State Director met with the Te-Moak Tribal Chairman, Te-Moak's counsel, and other representatives from the Tribe, WSDP, and GBMW, and also considered arguments from Cortez. After completing his review, the State Director affirmed a modified version of the DR/FONSI that imposed additional mitigation measures. One such modification was an exclusion zone protocol to protect PCRIIs eligible for inclusion on the National Register of Historic Places.

Dissatisfied with the State Director's modified DR/FONSI, Plaintiffs sought judicial review of the BLM's action in May 2005 by filing suit against the DOI, the BLM, and several BLM officers under the Administrative Procedure Act (APA). *See* 5 U.S.C. § 551 *et seq.* The district court subsequently granted Cortez's motion to intervene. Ultimately, the parties filed cross-motions for summary judgment. Concluding that the BLM had complied with NEPA, the NHPA, and the FLPMA, the district court granted Defendants' motion for summary judgment and denied Plaintiffs' motion for summary judgment. Plaintiffs timely appealed.

II. Discussion

Plaintiffs argue that the BLM's approval of the Amendment violated NEPA, the NHPA, and the FLPMA. We review *de novo* a district court's grant and denial of summary judgment.

Or. Natural Res. Council v. Lowe, 109 F.3d 521, 526 (9th Cir. 1997). Pursuant to the APA, our task is to determine whether the agency’s final action was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law” 5 U.S.C. § 706(2)(A); *see also Or. Natural Desert Ass’n v. Bureau of Land Mgmt.*, 531 F.3d 1114, 1140 (9th Cir. 2008). Here, we review the modified DR/FONSI issued by the BLM State Director, which is the final agency action. *See* 43 C.F.R. § 3809.809(b).

The arbitrary and capricious standard “requires us to ensure that an agency has taken the requisite hard look at the environmental consequences of its proposed action, carefully reviewing the record to ascertain whether the agency decision is founded on a reasoned evaluation of the relevant factors.” *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992) (internal quotation marks and citations omitted).

A. National Environmental Policy Act

[1] We first consider Plaintiffs’ argument that the BLM’s approval of the Amendment violated NEPA. NEPA imposes a procedural requirement “(1) to ensure the agency will have detailed information on significant environmental impacts when it makes its decisions; and (2) to guarantee that this information will be available to a larger audience.” *Inland Empire Pub. Lands Council v. U.S. Forest Serv.*, 88 F.3d 754, 758 (9th Cir. 1996). The NEPA procedures used by agencies “must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. § 1500.1(b). “The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.” 40 C.F.R. § 1500.1(c). Pursuant to these goals, NEPA requires federal agencies to prepare an environmental impact statement (“EIS”) for all “major Federal actions significantly affecting the quality of the human envi-

ronment” 42 U.S.C. § 4332(2)(C). An agency may first prepare an EA, however, to determine whether it must prepare an EIS or may issue a FONSI. 40 C.F.R. § 1508.9(a)(1). If the agency issues a FONSI, then it may proceed with the proposed action. *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004).

Here, the BLM prepared an EA, concluded on the basis of the EA’s findings that the Amendment would not significantly affect the environment, and issued a DR/FONSI. As noted above, after Plaintiffs objected, the BLM State Director affirmed the DR/FONSI with modifications that imposed an exclusion zone protocol, in addition to the avoidance measures imposed in the original DR/FONSI, to protect PCRIIs eligible for listing on the National Register. Plaintiffs challenge the BLM’s modified DR/FONSI on the grounds that (1) the BLM failed to take a “hard look” at the Amendment’s cultural and environmental impacts because it approved all three phases of the Amendment without obtaining sufficient information about each particular phase of exploration activities; (2) the BLM did not conduct sufficient analysis of reasonable alternatives; and (3) the BLM did not conduct sufficient analysis of cumulative impacts. We consider these arguments in turn.

1. Failure to Take a “Hard Look” at Cultural and Environmental Impacts

Plaintiffs argue that the BLM failed to take a “hard look” at the Amendment’s effects—specifically, effects on Western Shoshone cultural resources—because it approved all three phases of the Amendment without knowing the precise locations of the project’s activities, such as drill sites, access roads, and support facilities. Plaintiffs contend that, without these details, the BLM neither conducted a “hard look” analysis of the project, nor adequately informed the public of the potential impacts of the project, as NEPA requires. The BLM and Cortez argue that, in light of the exploratory nature of the

project, the BLM's analysis and decision comply with NEPA. They argue that the BLM sufficiently analyzed the potential impact that the project could have and imposed avoidance and mitigation measures that account for any unpredictable impacts on cultural resources.

[2] Although we have not previously reviewed the BLM's approval of a phased exploration project, the Interior Board of Land Appeals ("IBLA") reviewed a similar NEPA challenge to a phased exploration project in *Great Basin Mine Watch*, 159 IBLA 324 (2003).⁹ Similar to the situation here, in *Great Basin Mine Watch*, a mining company submitted to the BLM a proposal to expand an earlier exploration project. The proposed expansion would disturb an additional 95.55 acres of land for a total of 100 acres, within a 3,336-acre project area. *Id.* at 327, 331. The BLM analyzed the proposed amendment without specific details regarding the location of the Phase II and III operations. *Id.* at 327. The IBLA determined that the BLM's failure to include details for phases other than the first phase of the project did not violate NEPA, because "BLM compensate[d] for the omission of precise sites for future activities by analyzing the impacts of approximately 95.55 acres of additional surface disturbance anywhere within the project area and imposing resource-specific stipulations and mitigation measures for all activities throughout the entire project area." *Id.* at 354.

[3] We agree with the IBLA that the BLM, in some cases, may adapt its assessment of environmental impacts when the specific locations of an exploration project's activities cannot reasonably be ascertained until some time after the project is approved. NEPA's ultimate focus is on the assessment of environmental impacts and a project's details are usually a means to that end. An exploration project, however, inherently involves uncertainties; if mining companies knew the

⁹As we discuss below, the plaintiffs in *Great Basin Mine Watch* also challenged a phased exploration project under the NHPA and the FLPMA.

precise location of mineral deposits before drilling, exploration would not be required. In approving mineral exploration projects, the BLM must balance these uncertainties with its duty under NEPA to analyze possible environmental impacts. The IBLA's approach in *Great Basin Mine Watch* strikes an appropriate balance by holding that the BLM may approve an exploration project without knowing the exact locations of drill sites and other project activities. In order to do so, the BLM must analyze the impact of drilling activities in all parts of the project area and impose effective avoidance and mitigation measures to account for unknown impacts.

We recognize that in *Great Basin Mine Watch*, unlike here, the mining company provided the BLM with access road and drill site locations for Phase I. *See* 159 IBLA at 347. We do not believe, however, that this deficiency renders the BLM's approval of the Amendment unreasonable. Phase I exploration activities, like those for Phases II and III, are uncertain by design because Cortez must adjust the location of drilling throughout the course of Phase I. Here, as in *Great Basin Mine Watch*, the BLM was provided with dimensions of drill sites and access roads, the methods used to construct them, and the total surface disturbance area that would result from the Amendment. With this information, the BLM assessed the potential impacts from all three phases that might occur throughout the project area.

[4] Additionally, as in *Great Basin Mine Watch*, the BLM imposed effective avoidance and mitigation measures to protect Western Shoshone cultural resources from impacts resulting from all three phases of the Amendment. In the modified DR/FONSI, the BLM State director outlined these measures, which prevent Cortez from disturbing land in exclusion zones around PCRIs that are eligible for inclusion on the National Register unless later authorized to do so by the BLM. Accordingly, before beginning exploration activities, Cortez must submit 1:24,000 scale maps of the areas to be disturbed. Cortez may start exploration activities only if past surveys show

that no cultural resources are in the area. If the BLM determines that a Class III cultural resources survey is needed, an archaeologist and a Native American observer will survey the land and make recommendations.¹⁰ If Cortez finds previously undiscovered cultural resources while conducting exploration activities, it must cease activities within 100 meters of the discovery until the BLM determines whether or not the site is eligible for the National Register and should thus be protected by an exclusion zone. The BLM will delineate exclusion zones to surround any newly discovered sites that might be eligible for inclusion on the National Register.

[5] These measures compensate for Cortez's inability to identify the locations of drill sites and related activities for Phases I through III before beginning exploration activities, provide for phased assessment of areas not yet surveyed for cultural resources at a Class III level, and permit the BLM to protect cultural resources when so required by law. We therefore conclude that the BLM did not violate NEPA by approving the Amendment without knowing the precise locations of drill sites, access roads, and other project activities for Phases I through III.

¹⁰The BLM uses different types of surveys to evaluate areas for the presence of cultural resources. A Class I survey is "a professionally prepared study that includes a compilation and analysis of all reasonably available cultural resource data and literature, and a management-focused, interpretative, narrative overview, and synthesis of the data." BLM Manual, 8110 — Identifying and Evaluating Cultural Resources 8110.21A.1 (Rel. 8-73, 12/03/04) *available at* http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/coop_agencies/cr_publications.Par.44865.File.dat/Binder2-2.pdf (last visited June 11, 2010). A Class II survey is a "probabilistic field survey" or "statistically based sample survey" that "aid[s] in characterizing the probable density, diversity, and distribution of cultural properties in an area" *Id.* 8110.21B.1. A Class III survey is an "[i]ntensive" survey that involves "a professionally conducted, thorough pedestrian survey of an entire target area . . . intended to locate and record all historic properties" and that "provides managers and cultural resource specialists with a complete record of cultural properties." *Id.* 8110.21C.1, 8110.21C.3.

2. Failure to Consider Reasonable Alternatives

[6] Plaintiffs also argue that the BLM violated NEPA because the agency's discussion of reasonable alternatives in the Amendment's EA is inadequate. "The purpose of NEPA is to require disclosure of relevant environmental considerations that were given a 'hard look' by the agency, and thereby to permit informed public comment on proposed action and any choices or alternatives that might be pursued with less environmental harm." *Lands Council v. Powell*, 395 F.3d 1019, 1027 (9th Cir. 2005); see 42 U.S.C. § 4332(E) (requiring agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources"). Agencies are required to consider alternatives in both EISs and EAs and must give full and meaningful consideration to all reasonable alternatives. *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1245 (9th Cir. 2005); see also 40 C.F.R. § 1508.9(b). "The existence of a viable but unexamined alternative renders an environmental impact statement inadequate." *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992) (quoting *Citizens for a Better Henderson v. Hodel*, 768 F.2d 1051, 1057 (9th Cir. 1985)).

[7] Plaintiffs first argue that the BLM should have considered the alternative of approving only Phase I of the Amendment, rather than approving all three phases of the project, or that the BLM should have considered an alternative "where the operator would be required to at least set forth up-front its Phase I plans." As discussed earlier, given the uncertainty of the exploration activities, the BLM imposed mitigation measures designed to adequately protect cultural resources in all phases of the Amendment. "NEPA does not require a separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences." *Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1181 (9th Cir. 1990)

(citing *N. Plains Res. Council v. Lujan*, 874 F.2d 661, 666 (9th Cir. 1989)). Because of the mitigation measures, the environmental consequences of approving only the first phase of the project versus all three phases are substantially similar; therefore, the BLM was not required to address this alternative in the EA.

[8] Plaintiffs next argue that the BLM violated NEPA by failing to seriously analyze any alternative except Cortez’s chosen project. Specifically, Plaintiffs argue that the BLM’s analysis of the No Action Alternative was insufficient because it consisted of only one paragraph.¹¹ Plaintiffs’ argument is not persuasive. Although brief, the BLM’s discussion was sufficient because the No Action Alternative maintains the status quo, i.e. the original HC/CUEP plan of operations. The Amendment’s EA tiered to the EA for the original HC/CUEP, in which the direct impacts of the exploration activities were analyzed. See *N. Idaho Cmty. Action Network v. U.S. DOT*, 545 F.3d 1147, 1153 (9th Cir. 2008) (“[A]n agency’s obligation to consider alternatives under an EA is a lesser one than under an EIS. . . . [W]ith an EA, an agency only is required to include a brief discussion of reasonable alternatives.” (citations and internal quotation marks omitted)).

3. Failure to Assess Cumulative Impacts

[9] Plaintiffs finally contend that the BLM’s cumulative impact analysis in the Amendment’s EA was insufficient. “NEPA requires that where ‘several actions have a cumulative . . . environmental effect, this consequence must be considered in an EIS.’” *Neighbors of Cuddy Mountain v. U.S. For-*

¹¹Plaintiffs also suggest that the BLM violated NEPA by considering only two actions—the proposed plan and the No Action Alternative. There is no merit to this argument. In *Native Ecosystems*, we stated that “[t]o the extent that [Plaintiff] is complaining that having only two final alternatives—no action and a preferred alternative—violates [NEPA’s] regulatory scheme, a plain reading of the regulations dooms that argument.” 428 F.3d at 1246.

est Serv., 137 F.3d 1372, 1378 (9th Cir. 1998) (quoting *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990)); see 40 C.F.R. § 1508.25(c)(3). We also require that an EA fully address cumulative environmental effects or “cumulative impacts.” See, e.g., *Kern v. BLM*, 284 F.3d 1062, 1076 (9th Cir. 2002) (“Given that so many more EAs are prepared than EISs, *adequate consideration of cumulative effects requires that EAs address them fully.*” (quoting Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act* 4 (Jan. 1997), also available at <http://ceq.hss.doe.gov/nepa/ccenepa/ccenepa.htm> (last visited June 11, 2010) (emphasis added))). “Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” 40 C.F.R. § 1508.7.

Here, the BLM designated an area in which it needed to analyze the Amendment’s cumulative impacts (“the cumulative effects area”). The Pediment/Cortez Hills project is a proposed mining operation located within the cumulative effects area. The BLM acknowledged in the Amendment’s EA that the Pediment/Cortez Hills project was a “reasonably foreseeable activity.” The BLM’s knowledge of the Pediment/Cortez Hills project in 2004 can also be reasonably inferred by its December 2005 publication of a “Notice of Intent to Prepare an Environmental Impact Statement to Analyze the Proposed Amendment to the Pipeline/South Pipeline Plan of Operations (NVN-067575) for the Cortez Hills Expansion Project.” 70 Fed. Reg. 72,308 (Dec. 2, 2005). Therefore, the BLM was required to analyze the cumulative impacts of the Amendment and the Pediment/Cortez Hills project. See 40 C.F.R. § 1508.7.

[10] In a cumulative impact analysis, an agency must take a “hard look” at all actions. An EA’s analysis of cumulative

impacts “must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment.” *Lands Council*, 395 F.3d at 1028. “General 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.” *Neighbors of Cuddy Mountain*, 137 F.3d at 1380. “[S]ome quantified or detailed information is required. Without such information, neither the courts nor the public . . . can be assured that the [agency] provided the hard look that it is required to provide.” *Id.* at 1379.

[11] Here, the Amendment’s EA included a cumulative impacts section that purported to review past, present, and reasonably foreseeable activities in the cumulative effects area, by examining specific resources that may be affected. The EA, however, failed to include the required “quantified or detailed information.” *See id.* A comparison of the Amendment’s EA with the EAs in *Klamath-Siskiyou* clearly demonstrates that the BLM’s analysis of cumulative impacts in the cumulative effects area did not adequately address the reasonably foreseeable mining activities of the Pediment/Cortez Hills project. *See* 387 F.3d at 997.

A review of the BLM’s analysis of the Amendment’s cumulative impact on two of these resource sections—Cultural Resources and Native American Religious Concerns—is instructive. We note that the bulk of the EA’s discussion in these two sections focuses on the effects of the Amendment itself, rather than the combined impacts resulting from the activities of the Amendment with other projects. Although part of the BLM’s analysis discusses “[t]he effects of the activities to be conducted under the [proposed Amendment] within the *cumulative effects study area*,” only two of the seven paragraphs in these two sections refer to cumulative effects. The majority of the discussion focuses on how effects of the Amendment’s additional exploration activities will be

avoided or mitigated. The EA's discussion of the Amendment's direct effects in lieu of a discussion of cumulative impacts is inadequate. *See id.* at 994 (holding that an EA's cumulative impact analysis was inadequate when, among other deficiencies, "[a] considerable portion of each section discusses only the direct effects of the project at issue on its own minor watershed").

[12] Moreover, although the EA refers to cumulative effects in two paragraphs in the Cultural Resources and Native American Religious Concerns sections, the EA does not, in fact, discuss the existence of any cumulative impacts on these resources.¹² Instead, it concludes that "[n]o incremental cumulative effects would occur to cultural resources as a result of the proposed project." To reach this conclusion, the EA reasons that all of the impacts from the expanded exploration activities will be avoided or mitigated and that all "[e]xisting, proposed, and reasonably foreseeable activities would avoid or mitigate all known and discovered resources."

[13] This type of conclusory "analysis" can be found throughout the cumulative impacts section. For example, the Amendment's EA devotes a scant three sentences to the cumulative impacts to Water Resources, stating only that "[i]mpacts to water resources . . . may include increased sedimentation and potential for erosion." This, despite the discussion earlier in the EA that the Amendment "could potentially result in direct impacts to groundwater resources where groundwater is encountered in the drill holes," and the BLM's prediction of significant impacts from dewatering as a result of the Pediment/Cortez Hills project and other Cortez projects

¹²The EA's brief reference to the "indirect cumulative effect [of] the removal of artifacts by non-Cortez individuals using an expanded road system to access previously inaccessible areas," is more accurately described as a direct effect rather than a cumulative one, because it would result from the Amendment itself. *Cf.* 40 C.F.R. § 1508.7 (describing cumulative impacts as a combination of impacts of the present action with impacts of other actions).

previously approved within the cumulative effects area. The EA's vague discussion of cumulative impacts can be found in virtually every subpart of the section.

In *Klamath-Siskiyou*, we rejected as inadequate EAs that listed different environmental concerns (e.g. air quality, water quality, etc.) with checkboxes marked "No," indicating that the environmental factor in question would not suffer any cumulative effects. 387 F.3d at 995. A number of these factors, however, were annotated to note that they would or could be impacted by the project, but that "[i]mpacts are being avoided by project design." *Id.* We held that this was insufficient because "[t]he EA[s] [are] silent as to the degree that each factor will be impacted and how the project design will reduce or eliminate the identified impacts." *Id.*

[14] We acknowledge that the EA here, unlike the EAs in *Klamath-Siskiyou*, does describe some of the ways in which the Amendment's impacts will be mitigated. The Amendment's EA contains a description of some mitigation measures, and the BLM State Director imposed additional measures in his April 2005 decision. The EA, however, fails to explain how Cortez will mitigate or avoid impacts to the different resources resulting from the *other* existing, proposed, or reasonably foreseeable projects, including the Pediment/Cortez Hills project. Further, as in *Klamath-Siskiyou*, the EA fails to explain the nature of *unmitigated* impacts of the Amendment's expanded exploration activities with other existing, proposed, and reasonably foreseeable activities.¹³

¹³Although the EA tiers to a number of EAs and EISs, including the original HC/CUEP's EA, these documents do not supplement the EA's incomplete analysis. Like the EA for the Amendment, the EA for the original HC/CUEP did not discuss cumulative effects; rather, it referred to the direct effects of only the HC/CUEP within the cumulative effects area: "The effects of the activities to be conducted under the Proposed Action within the cumulative effects study area are expected to be minimal and

Despite the above deficiencies, Cortez argues that there was no need for a cumulative impact analysis because there are no cumulative impacts to analyze. Cortez suggests that it is not enough to show that potential cumulative impacts were not analyzed; rather, Plaintiffs must prove that cumulative impacts will actually occur. Cortez thus adopts the district court's reasoning, which concluded that the cumulative impacts analysis of the Amendment's EA was sufficient because Plaintiffs "failed to identify how [the Pediment/Cortez Hills project] will have a cumulative impact when combined with the HC/CUEP Amendment Project."

Although we have not yet precisely articulated the burden that a plaintiff must bear to demonstrate that an agency should have analyzed the cumulative impacts of a proposed project along with other projects, our case law suggests that the burden is not an onerous one. In *City of Carmel-By-The-Sea v. United States Department of Transportation*, 123 F.3d 1142 (9th Cir. 1997), we observed that the plaintiffs met their burden in raising a cumulative impacts claim under NEPA, despite failing to specify a particular project that would cumulatively impact the environment along with the proposed project. *Id.* at 1161. We declined to impose a greater burden, noting that "the [Defendants] failed first; they did not properly describe other area projects or detail the cumulative impacts of these projects." *Id.* Moreover, in *Klamath-Siskiyou*, we noted that when "the potential for . . . serious cumulative impacts is apparent," the BLM needed to provide more details of its cumulative impact analysis in an EA before concluding that there were no significant cumulative effects. 387 F.3d at 996.

relatively short-term due to the nature of the proposed exploration activities and the special environmental protection measures to be used in the study area" Further, other EISs to which the Amendment's EA is tiered—the Pipeline/South Pipeline Pit Expansion EISs and the South Pipeline Project Final EIS—do not address impacts to Native American uses of the land.

[15] Applying *City of Carmel* and *Klamath-Siskiyou* here, we conclude that in order for Plaintiffs to demonstrate that the BLM failed to conduct a sufficient cumulative impact analysis, they need not show what cumulative impacts would occur. To hold otherwise would require the public, rather than the agency, to ascertain the cumulative effects of a proposed action. *See id.* Such a requirement would thwart one of the “twin aims” of NEPA—to “ensure[] that the *agency* will inform the *public* that it has indeed considered environmental concerns in its decisionmaking process.” *Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc.*, 462 U.S. 87, 97 (1983) (emphasis added).

[16] Instead, we conclude that Plaintiffs must show only the potential for cumulative impact. Here, Plaintiffs more than carry their burden by demonstrating that both the Amendment and the Pediment/Cortez Hills project will directly impact the same resources within the cumulative effects area, and thus have the potential for cumulative impacts. Although not necessary, Plaintiffs bolster their claim of cumulative impacts to Cultural Resources and Native American Religious Concerns by submitting the ethnographic study prepared by the BLM for the original Pediment Deposit mining project. The study predicted that the mine could (1) impede the Western Shoshone’s visual and physical access to Mt. Tenabo; (2) decrease the supply of pinyon pine available for harvesting by the Western Shoshone; and (3) disturb Western Shoshone burial sites. These same concerns could be affected by the exploration activities conducted under the Amendment, potentially resulting in a total impact that is greater than that caused by either the Pediment/Cortez Hills project or the Amendment.¹⁴

¹⁴Although the EA is vague about the activities that might impact Cultural Resources and Native American Religious Concerns, we do know that drill rigs will be used and that there will be surface disturbance in 50-acre plots, for a total of 250 acres. Because Mount Tenabo is located within the project area, these activities could, like the Pediment/Cortez Hills project, impede both physical and visual access to the mountain.

See Klamath-Siskiyou, 387 F.3d at 994 (“Sometimes the total impact from a set of actions may be greater than the sum of the parts. . . . [T]he addition of a small amount here, a small amount there, and still more at another point could add up to something with a much greater impact”).

[17] We conclude that BLM’s analysis of the cumulative impacts of the proposed Amendment and the Pediment/Cortez Hills project was insufficient, and therefore violated NEPA. NEPA requires the BLM to take a hard look at the cumulative impacts of the Amendment and other projects within the cumulative effects area; this it failed to do. We therefore hold that the district court erred in granting summary judgment for Defendants on this issue and remand to the district court with instructions to grant summary judgment for Plaintiffs and remand to the BLM for further proceedings. In light of our disposition of this issue, we need not address Plaintiffs’ argument that the Amendment and the Pediment/Cortez Hills project are “cumulative actions” under NEPA and should be considered in one comprehensive EIS. *See Klamath-Siskiyou*, 387 F.3d at 997, 1000 (observing that in light of an insufficient cumulative impact analysis, the court could not determine whether a single EA or EIS was needed); 40 C.F.R. § 1508.25(a)(2).¹⁵

Also like the Pediment/Cortez Hills project, surface disturbance from the Amendment could disturb Western Shoshone burial sites. Finally, in the discussion of forestry impacts, the EA predicts that “some [pinyon pine] trees may be removed for construction of access roads and drill sites.” The combined destruction of pinyon pine by both the Pediment/Cortez Hills project and the Amendment could, cumulatively, result in the decreased availability of pinyon pine nuts for harvesting. None of these possibilities is discussed in the EA’s “Cultural Resources” or “Native American Religious Concerns” sections.

¹⁵Because we conclude that the cumulative impact analysis was incomplete, we need not address Plaintiffs’ argument that the BLM failed to discuss the cumulative impacts of the Amendment with the Cortez Underground Exploration Project and Cortez’s geothermal lease project.

In sum, although we conclude that in the EA, the BLM took a hard look at the direct impacts of the Amendment and that its discussion of reasonable alternatives was proper, we hold that the BLM violated NEPA's mandate by failing to conduct a proper analysis of the cumulative impacts of the Amendment and the Pediment/Cortez Hills project on Western Shoshone cultural resources in the area. We therefore conclude that the BLM's approval of the Amendment was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" 5 U.S.C. § 706(2)(A).

B. National Historic Preservation Act

[18] Plaintiffs also argue that the BLM's approval of the Amendment violated section 106 of the NHPA. Section 106 requires the BLM to "take into account the effect of [an] undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register [of Historic Places]." 16 U.S.C. § 470f. Like NEPA, "[s]ection 106 of NHPA is a 'stop, look, and listen' provision that requires each federal agency to consider the effects of its programs." *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 805 (9th Cir. 1999); *cf. United States v. 0.95 Acres of Land*, 994 F.2d 696, 698 (9th Cir. 1993) ("NHPA is similar to NEPA except that it requires consideration of historic sites, rather than the environment.").

The NHPA explicitly delegates authority to the Advisory Council on Historic Preservation "to promulgate such rules and regulations as it deems necessary to govern the implementation" of section 106. 16 U.S.C. § 470s. We have previ-

Plaintiffs will have the opportunity to pursue these arguments before the agency when the BLM reexamines the cumulative impacts section. We also note that some of these arguments may be at issue in another case, *South Fork Band Council of Western Shoshone of Nevada v. United States Department of the Interior*, 588 F.3d 718 (9th Cir. 2009).

ously determined that federal agencies must comply with these regulations. *See Pit River Tribe v. U.S. Forest Serv.*, 469 F.3d 768, 787 (9th Cir. 2006); *Muckleshoot Indian Tribe*, 177 F.3d at 805. The section 106 process requires an agency to

make a reasonable and good faith effort to identify historic properties; determine whether identified properties are eligible for listing on the National Register . . . ; assess the effects of the undertaking on any eligible historic properties found; determine whether the effect will be adverse; and avoid or mitigate any adverse effects. The [agency] must confer with the State Historic Preservation Officer (“SHPO”) and seek the approval of the Advisory Council on Historic Preservation (“Council”).

Muckleshoot Indian Tribe, 177 F.3d at 805 (citations omitted).

In some cases, “[p]roperties of traditional religious and cultural importance to an Indian tribe . . . may be determined to be eligible for inclusion on the National Register.” 16 U.S.C. § 470a(d)(6)(A). The BLM refers to such properties as “properties of cultural and religious importance” or “PCRIs.” The NHPA implementing regulations require the BLM, at all stages of the section 106 process, to consult with tribes that “attach[] religious and cultural significance to historic properties that may be affected by an undertaking.” 36 C.F.R. § 800.2(c)(2)(ii). “The goal of consultation is to identify historic properties potentially affected by the undertaking” *Id.* § 800.1.

The BLM consulted with the Tribe in 2000 to determine if there were any PCRIs within the project area, in connection with Cortez’s original proposal to conduct HC/CUEP exploration activities. On July 27, 2001, the Tribe responded to the BLM’s inquiries by submitting a map outlining the bounda-

ries of what it called “traditional cultural property.”¹⁶ On the basis of this submission, further consultations with the Tribe, and various ethnographic reports regarding the area, the BLM evaluated several sites to determine whether they were eligible for listing on the National Register.¹⁷ In April 2004, the BLM determined that two sites were eligible: (1) Horse Canyon and (2) the top of Mount Tenabo and the White Cliffs of Mount Tenabo (a combination of two of the evaluated PCRIs).¹⁸

Under section 106, the BLM was required to consider the Amendment’s effects on the two sites, identify any adverse effects, and avoid or mitigate any adverse effects. *See* 36 C.F.R. §§ 800.5, 800.6. The BLM, in the original DR/FONSI for the Amendment, concluded that because of the avoidance measures outlined in the EA, “there is no potential for impacts to cultural resources from surface disturbance exploration activities.” After Plaintiffs complained that the EA violated the NHPA, the BLM State Director reviewed the DR/FONSI and added the exclusion zone protocol. Plaintiffs continue to argue, as they did before the BLM State Director, that the BLM violated the NHPA because (1) the BLM failed to adequately consult with the Tribe and (2) the BLM State Director’s decision was incorrect and unsupported by the record.

¹⁶The term “traditional cultural property” or “TCP,” is a term used by the National Park Service to refer to “properties of traditional religious and cultural importance” that may be eligible for listing on the National Register under 16 U.S.C. § 470a(d)(6)(A). *See* Patricia L. Parker & Thomas F. King, National Park Service, National Register Bulletin 38, Guidelines for Evaluating and Documenting Traditional Cultural Properties 1 (1998), available at <http://www.nps.gov/history/nr/publications/bulletins/pdfs/nrb38.pdf> (last visited June 11, 2010). The term “TCP” is analogous to “PCRI”; it describes land that Native American tribes have identified as having cultural or religious significance.

¹⁷Five sites were evaluated: (1) Shoshone Camp; (2) the top of Mount Tenabo; (3) pinyon pine in the Pediment area; (4) the White Cliffs on the Pediment side of Mount Tenabo; and (5) Horse Canyon.

¹⁸The BLM has determined that other sites on the pediment, such as pinyon camps and longer-term occupation areas, were National Register eligible as ethnohistoric/archaeological sites, rather than as PCRIs.

1. Insufficient Consultation with the Tribe

[19] We first consider Plaintiffs’ argument that the BLM approved the Amendment without complying with its duty under the NHPA to consult with the Tribe. The NHPA implementing regulations require agencies to provide a tribe with “a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties, including those of traditional religious and cultural importance, articulate its views on the undertaking’s effects on such properties, and participate in the resolution of adverse effects.” 36 C.F.R. § 800.2(c)(2)(ii)(A).¹⁹ Further, “[c]onsultation [with Indian tribes] should commence early in the planning process, in order to identify and discuss relevant preservation issues,” *id.*, and “must recognize the government-to-government relationship between the Federal Government and Indian tribes,” *id.* § 800.2(c)(2)(ii)(C).

Plaintiffs argue that the BLM failed to initiate consultation with the Tribe in a timely fashion. Cortez proposed the Amendment to the BLM in July 2003. The BLM waited a full year to contact the Tribe, notifying the Tribe about the proposed Amendment in a July 28, 2004, letter after it had contacted all other “consulting parties.” The BLM sent this letter to the Tribe approximately one month before the BLM submitted the EA for the Amendment for public comment and three months before the BLM issued its first DR/FONSI. The BLM also left at least two phone messages with the Tribe in September. Although consultation about the Amendment between the BLM State Director and the Tribe eventually

¹⁹In arguing that the BLM violated the NHPA’s consultation requirements, Plaintiffs argue that the BLM was not responsive to GBMW’s and WSDP’s October 2004 requests for more information regarding the project. This argument fails because neither group is a federally recognized tribe to which the NHPA’s consultation requirements extend nor do Plaintiffs point to evidence in the record showing that either party was acting as “representatives designated or identified by the tribal government.” *See* 36 C.F.R. § 800.2(c)(2)(ii)(C).

took place, the consultation occurred after the BLM issued its DR/FONSI.

The BLM and Cortez argue that, in light of the BLM's previous consultation with the Tribe for the original HC/CUEP and other projects in the area, the BLM provided the Tribe with a sufficient "opportunity to identify its concerns about historic properties" as provided by 36 C.F.R. § 800.2(c)(2)(ii)(A). We agree. Notably, this case has a somewhat unique historic background, because the BLM began consulting with the Tribe while working on the original HC/CUEP and other projects. Indeed, as a result of one of the ethnographic studies that was a part of this earlier process, Mount Tenabo/White Cliffs and Horse Canyon were designated as National Register eligible PCRI. We also note that the Amendment did not propose to enlarge the project area in which exploration would take place; rather, it increased the amount of land that could be disturbed within the project area. Plaintiffs acknowledge these past efforts by explicitly stating that they do not challenge the BLM's previous efforts to identify historical, cultural, or religious sites within the project area. As emphasized by Plaintiffs, "[t]he issue is whether BLM properly conducted government-to-government consultation on *this* Project"

Here, Plaintiffs do not identify any new information that the Tribe would have brought to the attention of the BLM had it been consulted earlier in the approval process for the Amendment. Significantly, they concede that the BLM's research and investigation of culturally important sites was adequate for the original HC/CUEP EA. They thus fail to show or even argue that early consultation would have prevented any adverse effect on any yet-to-be identified National Register eligible PCRI. Additionally, Plaintiffs do not identify any new information regarding how the additional exploration would adversely affect the identified PCRI, again failing to demonstrate how early consultation with the Tribe might have affected the BLM's determination.

Moreover, the fundamental purpose of the NHPA is to ensure the preservation of historical resources. *See* 16 U.S.C. § 470a(d)(1)(A) (requiring the Secretary to “promulgate regulations to assist Indian tribes in preserving their particular historic properties” and “to encourage coordination . . . in historic preservation planning and in the identification, evaluation, protection, and interpretation of historic properties”); *see also Nat’l Indian Youth Council v. Watt*, 664 F.2d 220, 226 (10th Cir. 1981) (“The purpose of the National Historic Preservation Act (NHPA), is the preservation of historic resources.”). Early consultation with tribes is encouraged by the regulations “to ensure that all types of historic properties and all public interests in such properties are given due consideration” 16 U.S.C. § 470a(d)(1)(A); *cf. Pit River Tribe*, 469 F.3d at 785-86 (holding that dilatory environmental review is insufficient to comply with NEPA because “inflexibility may occur if delay in preparing an EIS is allowed: After major investment of both time and money, it is likely that more environmental harm will be tolerated.” (quoting *Save the Yaak Comm. v. Block*, 840 F.2d 714, 718 (9th Cir. 1988) (internal quotation marks and citations omitted))). While the Plaintiffs are correct that the NHPA’s implementing regulations “recognize the government-to-government relationship between the Federal Government and Indian tribes,” they do so to ensure that consultation “be conducted in a manner sensitive to the concerns and needs of the Indian tribe” 36 C.F.R. § 800.2(c)(2)(ii)(C).

[20] In sum and as reflected in the record, the BLM has consulted with the Tribe regarding PCRIs within the project area for many years. In addition, the Tribe has made no showing that it would have provided new information had it been consulted again earlier in the Amendment’s approval process. We therefore conclude that the BLM did not violate its obligation to consult with the Tribe and thus did not violate the NHPA. 36 C.F.R. § 800.1; *see also Muckleshoot Indian Tribe*, 177 F.3d at 806-07; *Morongo Band of Mission Indians v.*

FAA, 161 F.3d 569, 582 (9th Cir. 1998); *cf. Pit River Tribe*, 469 F.3d at 785-86.²⁰

2. Incorrect or Unsupported “No Effect” Determination

Next, Plaintiffs argue that, even if the Tribe was properly consulted, the BLM’s “no effect” determination under the NHPA was improper. We are not convinced.

[21] First, we do not agree that approval of a phased project in its entirety always results in a violation of the NHPA. As noted above, the NHPA, like NEPA, is a procedural statute requiring government agencies to “stop, look, and listen” before proceeding with agency action. For the same reasons that we concluded in the NEPA context that a phased exploration project in some circumstances can be fully approved without all the details of the separate phases of exploration, we reach the same conclusion in the NHPA context. *See, e.g., Great Basin Mine Watch*, 159 IBLA at 356 (holding that the BLM did not violate the NHPA when it approved all phases of a project without knowing exact locations of access roads and drill sites, because it had surveyed the entire project area for cultural properties, identified sites eligible for listing in the National Register, and imposed conditions “to ensure avoidance of impacts to those eligible sites”).

²⁰We note that Plaintiffs also complain that the DR/FONSI relies on a 2004 Programmatic Agreement that the BLM entered into with the Nevada SHPO, Cortez, and the Advisory Council on Historic Preservation, pursuant to 36 C.F.R. § 800.14(b), to guide the BLM’s management of cultural resources in the project area. According to Plaintiffs, the 2004 agreement cannot substitute for consultation with the Tribe, because the Tribe is not a signatory to the document. As the State Director’s decision notes, however, the BLM did not rely on the 2004 agreement, but rather on a 1992 Programmatic Agreement between the same parties. In light of this fact, we place no significance on the initial DR/FONSI’s reference to the 2004 Programmatic Agreement.

Second, Plaintiffs' argument that the exclusion zone procedures do not offer adequate protection to cultural resources under the NHPA is without merit.²¹ According to Plaintiffs, the National Register eligible PCRI in the project area are of a "landscape-scale" and therefore are not susceptible to protection by "zones." Plaintiffs are correct that the PCRI designated by the BLM as eligible for the National Register encompass large areas of land. The NHPA, however, does not mandate protection of all parts of an eligible PCRI. Section 106 requires a federal agency "[to] take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register." 16 U.S.C. § 470f; *see also* 36 C.F.R. § 800.6(b). The NHPA regulations, however, define an "effect" as an "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." 36 C.F.R. § 800.16; *see also id.* § 800.5(a)(1) (defining an "adverse effect" as the direct or indirect alteration of "any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association").

[22] Here, the eligible PCRI's characteristics described in the BLM's April 2004 report are discrete features such as the top of Mt. Tenabo, the "white quartz ledge on the south face of Mt. Tenabo" called the White Cliffs, a network of caves within the mountain, and burial locations. Characteristics that made Horse Canyon eligible included the specific resources available there: perennial surface water and unique medicinal

²¹We also dismiss Plaintiffs' argument that the BLM's mitigation measures fail to require adequate consultation with the Tribe because the BLM alone will make certain determinations without input from the Tribe, such as the precise location of exclusion zones. Plaintiffs' argument fails because the actions to which Plaintiffs refer are post-consultation and post-approval mitigation measures; section 106 does not mandate consultation at this post-approval stage of the project.

and edible plants. Although it is understandable that the Tribe values the landscape of the project area as a whole, the NHPA requires that the BLM protect only against adverse effects on the features of these areas that make them eligible for the National Register. Plaintiffs have not demonstrated that the exclusion zones will fail to prevent any adverse effects to these features.

[23] Because we conclude that the BLM's approval of all phases of the Amendment does not constitute a violation of the NHPA, and that the exclusion zone protocol sufficiently protects the features that make the designated PCRI's National Register eligible, we hold that the BLM's "no effect" determination under the NHPA was proper.

C. Federal Land Policy and Management Act

[24] Last, we address Plaintiffs' argument that the BLM's approval of the Amendment violated the FLPMA. The FLPMA requires that the BLM "by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. § 1732(b). The BLM has promulgated "surface management" regulations to implement this statutory mandate. *See, e.g.*, 43 C.F.R. § 3809 (partially codifying Mining Claims Under the General Mining Laws; Surface Management, 65 Fed. Reg. 69,998-70,132 (Nov. 21, 2000)). The surface management regulations require "[a]nyone intending to develop mineral resources on the public lands [to] prevent unnecessary or undue degradation of the land," and they "establish[] procedures and standards to ensure that operators and mining claimants meet this responsibility . . ." 43 C.F.R. § 3809.1(a). By their terms, the regulations govern the proposals and activities of mining operators. *See id.* § 3809.1(b).

Plaintiffs contend that Cortez did not comply with several regulations implementing the FLPMA. Specifically, Plaintiffs argue that Cortez failed to submit required information with

its proposal for the Amendment as required by 43 C.F.R. § 3809.401. They also argue that the Amendment's plan of operations fails to satisfy a number of performance standards set forth in 43 C.F.R. § 3809.420. Because Cortez allegedly failed to fulfill its obligations under these regulations, Plaintiffs argue that the BLM failed to prevent unnecessary or undue degradation of federal lands and therefore violated the FLPMA when it approved the Amendment. We disagree.

1. Failure to Provide Plan of Operations Components

Plaintiffs first argue that the BLM's approval of the Amendment without obtaining information from Cortez as required in 43 C.F.R. § 3809.401(b) violated the FLPMA. Section 3809.401(b) requires that mining operators "describe the proposed operations at a level of detail sufficient for BLM to determine that the plan of operations prevents unnecessary or undue degradation" 43 C.F.R. § 3809.401(b). The BLM "require[s] less information about smaller and simpler mining operations." 65 Fed. Reg. at 70,004. In general, information specified under § 3809.401(b)(2) "is only required to the extent it is applicable to the operation." 65 Fed. Reg. at 70,040-42; *see also* 43 C.F.R. §§ 3809.401(b)(2), 3809.401(b)(5).

We quickly dispose of several of Plaintiffs' challenges to alleged deficiencies in the Amendment's plan of operations because they are simply not applicable to the Amendment. We reject Plaintiffs' vague and unsupported contentions that (1) the plan of operations failed to contain a number of detailed plans and descriptions as set forth in 43 C.F.R. § 3809.401(b), and (2) the BLM failed to require an interim management plan under 43 C.F.R. § 3809.401(b)(5), or cross sections, preliminary or conceptual designs, and operating plans for approved projects under 43 C.F.R. § 3809.401(b)(2)(ii). These regulations apply to mining operations, not exploration projects like the HC/CUEP. *See* 43

C.F.R. § 3809.401(b)(2)(ii) (requiring information only “for mining areas, processing facilities, and waste rock and tailing disposal facilities”); 65 Fed. Reg. at 70,042 (explaining that the interim management plan regulation was added pursuant to Recommendation 5 of the National Research Council’s *Hardrock Mining on Federal Lands* 101 (1999), which addresses the need for interim plans for mine closure).

With regard to the information that is required, we reject Plaintiffs’ arguments that the BLM approved the Amendment without the benefit of a complete description of the proposed operations, a general schedule of operations, and a monitoring plan. *See* 43 C.F.R. § 3809.401(b). These elements can be found in the Amendment’s proposal and EA. Because Plaintiffs cannot demonstrate that the Amendment did not “describe the proposed operations at a level of detail sufficient for BLM to determine that the plan of operations prevents unnecessary or undue degradation,” these arguments fail. 43 C.F.R. § 3809.401(b).

[25] We also reject Plaintiffs’ argument that the BLM’s approval of the Amendment was improper because it did not have “[m]aps of the project area at an appropriate scale showing the location of exploration activities, drill sites . . . and access routes” 43 C.F.R. § 3809.401(b)(2)(i). They argue that in so doing, the BLM failed to fulfill its obligation to prevent unnecessary and undue degradation under the FLPMA. The IBLA considered a similar argument in *Great Basin Mine Watch* and concluded that the BLM had not violated 43 C.F.R. § 3809.401(b)(2)(i) or the FLPMA when it approved a plan of operations for a similarly phased exploration project that did not “provide any significant details for the phases other than Phase I.”²² *Great Basin Mine Watch*, 159 IBLA at

²²The IBLA’s decision considered the BLM’s compliance under the pre-2001 regulations, which contained slightly different wording and were organized into sections in a manner different than the current regulations. 159 IBLA at 345, n.9. The differences, however, do not affect our analysis of the issues here.

345; *see id.* at 347-48. In the NEPA and NHPA contexts, we found *Great Basin Mine Watch*'s reasoning to be persuasive regarding the level of detail required for approval of phased exploration projects. We have no reason to resolve this issue any differently in the FLPMA context. We therefore conclude that the BLM's approval of the Amendment without all of the details for the separate phases of exploration did not violate the FLPMA.

2. Failure to Meet Performance Standards

Plaintiffs also argue that the BLM violated the FLPMA when it approved the Amendment's plan of operations, despite its failure to meet two of the performance standards set forth in 43 C.F.R. § 3809.420. Although a plan of operations must comply with these performance standards, the BLM may "approve [a] plan of operations subject to changes or conditions that are necessary to meet the performance standards of § 3809.420 and to prevent unnecessary or undue degradation." 43 C.F.R. § 3809.411(d)(2).

Plaintiffs first contend that Cortez failed to specify access routes for the Amendment's additional exploration activities in violation of 43 C.F.R. § 3809.420(b)(1). That regulation requires that, "[w]here a notice or a plan of operations is required, it shall specify the location of access routes" While Cortez did not specify access routes at the time of approval, the BLM set forth in the Amendment's EA, the original DR/FONSI, and the modified DR/FONSI, that Cortez needed to "submit 1:24,000 maps showing the locations of the proposed drill pads and access roads" prior to any earth-disturbing activities.

[26] Plaintiffs also argue that, in approving the Amendment, the BLM failed to protect cultural resources pursuant to 43 C.F.R. § 3809.420(b)(8). The regulation mandates that:

- (i) Operators shall not knowingly disturb, alter, injure, or destroy any scientifically important pale-

ontological remains or any historical or archaeological site, structure, building or object on Federal lands.

(ii) Operators shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. The authorized officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after notification to the authorized officer of such discovery.

43 C.F.R. § 3809.420(b)(8)(i)-(ii). As it did with the access routes in the Amendment's EA and DR/FONSI, the BLM imposed conditions on the Amendment's plan of operations that served to fulfill this performance standard. Under the EA and DR/FONSI, once Cortez has provided maps showing specific drill sites, the BLM must take affirmative steps to evaluate cultural resources in the area and to protect those resources through avoidance measures.²³ Further, the EA

²³The EA acknowledges that in some cases, proposed earth-disturbing activities may not be able to avoid sites eligible for the National Register. Section 3809.420(b)(8)(ii), however, does not appear to require an operator to avoid cultural resources at any cost: the operator "shall leave such discovery intact until told to proceed by the authorized officer." *Id.*

In their reply brief, Plaintiffs argue that 43 C.F.R. § 3809.420(b)(8) mandates the protection of a broader set of cultural resources than are protected by the NHPA. For this reason, Plaintiffs argue, the mitigation measures imposed by the BLM, which are directed only at protecting PCRIs eligible for inclusion on the National Register pursuant to the NHPA, do not protect other cultural resources and therefore do not fulfill the performance standard in § 3809.420(b)(8). Because Plaintiffs failed to pursue this line of argument in their opening brief, and because Plaintiffs fail to support this argument beyond its bare assertion, we deem the argument waived. See *Entm't Research Group v. Genesis Creative Group*, 122 F.3d 1211, 1217 (9th Cir. 1997).

requires that Cortez, “within 24 hours, notify proper authorities and the BLM if subsurface cultural resources are discovered during construction, operation, or reclamation activities” and to “immediately cease earth-disturbing activities within 100 meters of the discovery, until the discovery can be examined by the proper authorities and/or a BLM-approved archaeologist.” Under the EA, Cortez can “only resume [earth-disturbing activities] once cleared by the BLM or other appropriate authority.” These procedures were later modified by the State Director to provide even further protection to any newly discovered historical, archaeological, or paleontological resources. Consequently, we conclude that the Amendment meets the performance standards in §§ 3809.420(b)(1) and 3809.420(b)(8) and affirm the district court’s award of summary judgment to the BLM and Cortez on Plaintiffs’ FLPMA claims.

III. Conclusion

Because the BLM approved the Amendment to the HC/CUEP in violation of NEPA, we reverse the district court’s award of summary judgment to Defendants and remand to the district court so that it may enter summary judgment in favor of Plaintiffs on their NEPA claim and remand the matter to the BLM for further proceedings. On the NHPA and FLPMA claims, we affirm the district court’s grant of summary judgment to Defendants. **AFFIRMED** in part and **REVERSED** in part, and **REMANDED** for further proceedings consistent with this opinion. Each side shall bear its own costs on appeal.