

**In the Supreme Court of the United States**

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GOUYEN BROWN LOPEZ, SINETTA LOPEZ, on behalf of herself and her minor child  
L.B., NOMIE BROWN, AND ANGELA KINSEY, on behalf of herself and her minor  
children V.K. and M.K.,

*Applicants,*

v.

UNITED STATES OF AMERICA; U.S. DEPARTMENT OF AGRICULTURE; U.S. FOREST  
SERVICE; BROOKE ROLLINS, in her official capacity as Secretary of Agriculture; AND  
TOM SCHULTZ, in his official capacity as Chief of the U.S. Forest Service,

*Respondents,*

v.

RESOLUTION COPPER MINING, LLC,

*Intervenor-Respondent.*

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**To the Honorable Elena Kagan, Associate Justice of the United States  
Supreme Court and Circuit Justice for the Ninth Circuit**

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**APPENDIX OF EXHIBITS**

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6 **IN THE UNITED STATES DISTRICT COURT**  
7 **FOR THE DISTRICT OF ARIZONA**  
8

9 Gouyen Brown Lopez, et al.,  
10 Plaintiffs,  
11 v.  
12 United States of America, et al.,  
13 Defendants.  
14

No. CV-25-02758-PHX-DWL  
**ORDER**

15 Pending before the Court are Plaintiffs’ motion for a preliminary injunction (Doc.  
16 15) and Plaintiffs’ emergency motion for an injunction pending appeal (Doc. 43). For the  
17 reasons that follow, both motions are denied.

18 **RELEVANT BACKGROUND**

19 I. Overview Of SALECA

20 In 2014, as part of the National Defense Authorization Act for Fiscal Year 2015  
21 (“NDAA”), Congress enacted the Southeast Arizona Land Exchange and Conservation Act  
22 (“SALECA”). SALECA authorizes the exchange of 2,422 acres of federal land in the  
23 Tonto National Forest for land held by a private company, Resolution Copper (“Resolution  
24 Copper”). The federal land to be transferred to Resolution Copper includes an Apache  
25 ceremonial ground called *Chi’chil Bildagoteel*. That area, known in English as Oak Flat,  
26 “is a site of great spiritual value to the Western Apache Indians, who believe that it is  
27 indispensable to their religious worship,” but “also sits atop the world’s third-largest  
28 deposit of copper ore.” *Apache Stronghold v. United States*, 101 F.4th 1036, 1044 (9th

1 Cir. 2024) (en banc). Congress’s intent in authorizing the land exchange was “[t]o take  
2 advantage of that deposit” by enabling Resolution Copper to “mine the ore.” *Id.*

3 Under SALECA, the United States Forest Service (“Forest Service”) must prepare  
4 an environmental impact statement “[p]rior to conveying Federal land,” and the Forest  
5 Service must then convey that land to Resolution Copper “[n]ot later than 60 days after  
6 publication.” 16 U.S.C. § 539p(c)(9)(B), (c)(10).

7 On January 15, 2021, the Forest Service published what was, at the time, the final  
8 environmental impact statement (“FEIS”). Thus, under SALECA, the land exchange was  
9 required to occur within the next 60 days, *i.e.*, by March 16, 2021.

## 10 II. The Three Earlier Lawsuits Challenging The Land Exchange

11 In early 2021, three sets of plaintiffs filed lawsuits in the District of Arizona, each  
12 seeking a preliminary injunction to preclude the land exchange from going forward.

### 13 A. *Apache Stronghold*

14 In the first-filed action, *Apache Stronghold v. United States et al.*, No. 21-cv-50-  
15 PHX-SPL (hereinafter, “*Apache Stronghold*”), the plaintiff—a nonprofit organization  
16 formed to preserve and protect American Indian sacred sites—alleged that the land  
17 exchange would violate the rights of members of the San Carlos Apache Tribe (“the Tribe”)  
18 under the First Amendment’s Free Exercise Clause, the Religious Freedom Restoration  
19 Act (“RFRA”), and an 1852 treaty between the United States and the Tribe. The procedural  
20 history of *Apache Stronghold* is complex, but the relevant developments are as follows.

21 On February 12, 2021, Judge Logan denied the plaintiff’s motion for a preliminary  
22 injunction, concluding that the plaintiff had not established a likelihood of success or even  
23 serious questions going to the merits of its claims. (*Apache Stronghold*, Doc. 57.) The  
24 plaintiff appealed, and on February 22, 2021, Judge Logan denied the plaintiff’s motion  
25 for an injunction or stay pending appeal. (*Apache Stronghold*, Doc. 64.)

26 On March 1, 2025—only 15 days before the 60-day transfer deadline was to  
27 expire—the Forest Service rescinded the FEIS. (*Apache Stronghold*, Doc. 80 at 1 n.1.) As  
28 a result, on March 5, 2021, the Ninth Circuit motions panel (over the dissent of Judge

1 Bumatay) denied the plaintiff’s emergency motion for an injunction pending appeal,  
2 concluding that the request was “premature” in light of the rescission of the FEIS. *Apache*  
3 *Stronghold v. United States*, 2021 WL 12295173, \*1 (9th Cir. 2021).

4 On June 24, 2022, the Ninth Circuit three-judge merits panel (over the dissent of  
5 Judge Berzon) affirmed the denial of the motion for a preliminary injunction, agreeing with  
6 Judge Logan that the plaintiff was unlikely to succeed on its RFRA, Free Exercise, and  
7 treaty-based claims. *Apache Stronghold v. United States*, 38 F.4th 742 (9th Cir. 2022).  
8 However, the Ninth Circuit then voted to rehear the case *en banc*.

9 On May 14, 2024, the *en banc* court issued an amended 6-5 decision that again  
10 affirmed the denial of the motion for a preliminary injunction due to the plaintiff’s failure  
11 to establish a likelihood of success on the merits. *Apache Stronghold v. United States*, 101  
12 F.4th 1036 (9th Cir. 2024) (en banc).

13 On May 27, 2025, the Supreme Court (over the dissent of Justices Gorsuch and  
14 Thomas) denied the plaintiff’s petition for certiorari. *Apache Stronghold v. United States*,  
15 145 S. Ct. 1480 (2025).

16 On June 23, 2025, the plaintiff filed a petition for rehearing with the Supreme Court,  
17 arguing that the Court should defer ruling on the petition for certiorari pending the issuance  
18 of the Court’s decision in *Mahmoud v. Taylor*.

19 On June 27, 2025, the Supreme Court decided *Mahmoud v. Taylor*, 145 S. Ct. 2332  
20 (2025).

21 On July 3, 2025, Plaintiff filed a supplemental brief seeking a GVR (*i.e.*, grant,  
22 vacate, and remand order) in light of *Mahmoud*.

23 As of today, August 17, 2025, the Supreme Court has not taken action on those  
24 requests.<sup>1</sup>

25 ...

26 ...

27 \_\_\_\_\_  
28 <sup>1</sup> The Supreme Court docket contains links to the recent filings identified above.  
<https://www.supremecourt.gov/search.aspx?filename=/docket/docketfiles/html/public/24-291.html>.

1           B.     ***San Carlos And AMRC***

2           The other two actions filed in 2021 were *San Carlos Apache Tribe v. United States*  
3 *Forest Service et al.*, No. 21-cv-68-PHX-DWL (hereinafter, “*San Carlos*”), and *Arizona*  
4 *Mining Reform Coalition v. United States Forest Service et al.*, No. 21-cv-122-PHX-DWL  
5 (hereinafter, “*AMRC*”). Both actions were eventually assigned to the undersigned judge.

6           In each action, the plaintiffs filed a motion for a preliminary injunction in early 2021  
7 but then withdrew the motion based on the March 1, 2021 rescission of the FEIS. (*San*  
8 *Carlos*, Docs. 29, 42; *AMRC*, Docs. 9, 29.) Both cases were then stayed pending the  
9 reissuance of the FEIS. (*San Carlos*, Doc. 47; *AMRC*, Doc. 35.)

10           On June 20, 2025, the Forest Service published a new version of the FEIS. Thus,  
11 under SALECA, the land exchange must occur within the next 60 days, *i.e.*, by August 19,  
12 2025. 16 U.S.C. § 539(c)(10). For reasons that are unnecessary to detail here, the Court  
13 issued an order precluding the Forest Service from proceeding with the land exchange until  
14 the very last day of that period, August 19, 2025. (*San Carlos*, Doc. 99; *AMRC*, Doc. 81.)

15           Following the publication of the new FEIS, the plaintiffs in *San Carlos* and *AMRC*  
16 filed amended complaints and new motions for a preliminary injunction. (*San Carlos*,  
17 Docs. 104, 105; *AMRC*, Docs. 86, 87.) Presumably in light of the developments in *Apache*  
18 *Stronghold*, those motions did not raise any RFRA, Free Exercise, or treaty-based claims.  
19 Instead, the claims underlying those motions fell into the following four categories:

20           • Appraisal Claims: Under SALECA, the Forest Service must perform an appraisal  
21 to calculate the value of the federal and non-federal land to be exchanged. 16 U.S.C.  
22 § 539p(c)(4). SALECA also creates an “equalization process” providing that if the federal  
23 land is more valuable than the non-federal land, Resolution Copper must make up the  
24 difference by conveying additional land and/or “mak[ing] a cash payment.” *Id.*  
25 § 539p(c)(5)(B)(i). *AMRC* argued that the Forest Service violated its appraisal-related  
26 duties under SALECA by failing to account for the value of the copper deposits underlying  
27 one of the federal parcels to be exchanged, known as the Mining Claim Zone (“MCZ”)  
28 parcel—an omission that, according to *AMRC*, resulted in the Forest Service “low-

1 ball[ing] the appraised value” of that parcel by potentially billions of dollars. (AMRC, Doc.  
2 97 at 10.)

3 • NEPA Claims: SALECA provides that “[p]rior to conveying Federal land under  
4 this section, the Secretary [of Agriculture] shall prepare a single environmental impact  
5 statement under the National Environmental Policy Act of 1969 [‘NEPA’], which shall be  
6 used as the basis for all decisions under Federal law related to the proposed mine and the  
7 Resolution mine plan of operations and any related major Federal actions significantly  
8 affecting the quality of the human environment, including the granting of any permits,  
9 rights-of-way, or approvals for the construction of associated power, water, transportation,  
10 processing, tailings, waste disposal, or other ancillary facilities.” 16 U.S.C.  
11 § 539p(c)(9)(B). In their motions, AMRC and the Tribe identified an array of perceived  
12 NEPA-related shortcomings and omissions in the FEIS.

13 • Consultation Claims: SALECA provides that “[t]he Secretary shall engage in  
14 government-to-government consultation with affected Indian tribes concerning issues of  
15 concern to the affected Indian tribes related to the land exchange.” 16 U.S.C.  
16 § 539p(c)(3)(A). Additionally, under section 106 of the National Historic Preservation Act  
17 (“NHPA”), agencies “shall take into account the effect of an undertaking on any historic  
18 property” and afford the Advisory Council on Historic Preservation (“ACHP”) “a  
19 reasonable opportunity to comment with regard to the undertaking.” *Tohono O’odham*  
20 *Nation v. U.S. Dept. of the Interior*, 138 F.4th 1189, 1193 (9th Cir. 2025) (cleaned up). In  
21 its motion, the Tribe argued that the Forest Service did not fulfill these consultation duties  
22 before publishing the FEIS.

23 • NFMA Claims: The National Forest Management Act (“NFMA”) includes a  
24 provision that requires the Forest Service to prepare a land and resource management plan  
25 for each national forest. 16 U.S.C. § 1604(a). Such a plan exists for the Tonto National  
26 Forest (the “Forest Plan”) and was last amended in 2023. In the FEIS, the Forest Service  
27 acknowledges that some of the contemplated mining-related activities will occur within the  
28 Tonto National Forest and thus require an amendment of the Forest Plan (*San Carlos*, Doc.

1 105-9 at 11, 54), and the draft record of decision (“DROD”) proposes 16 amendments to  
2 the Forest Plan that would be required for approving Skunk Camp as the preferred tailings  
3 storage facility alternative (AMRC, Doc. 87-3 at 19-25). In its motion, AMRC argued that  
4 this approach violates NFMA’s forest planning regulations, which appear at 36 C.F.R. Part  
5 219, because those regulations require a public notice-and-comment process “which did  
6 not occur here” before any forest plan may be amended. (AMRC, Doc. 87 at 28.)

7 On August 6, 2025, soon after the preliminary injunction motions became fully  
8 briefed, the Court held a lengthy motion hearing in *San Carlos* and *AMRC*.

9 On August 15, 2025, the Court issued a 94-page order (hereinafter, “the August 15,  
10 2025 order”) denying both preliminary injunction motions. (*San Carlos*, Doc. 124; *AMRC*,  
11 Doc. 99.) The August 15, 2025 order also specified that that the Court would deny the  
12 plaintiffs’ requests for an injunction pending appeal. (*Id.*)

13 That same day, both sets of plaintiffs filed interlocutory appeals. (*San Carlos*, Doc.  
14 125; *AMRC*, Doc. 100.)

### 15 III. This Action

16 On July 24, 2025, Plaintiffs initiated this action in the United States District Court  
17 for the District of Columbia. (Doc. 1.)

18 On July 25, 2025, there was a flurry of activity. Among other things, the Federal  
19 Defendants moved to transfer this action to the District of Arizona (Doc. 7), Resolution  
20 Copper moved to intervene (Doc. 10) and filed a separate transfer request (Doc. 12), and  
21 Plaintiffs moved for a preliminary injunction (Doc. 15).

22 On August 1, 2025, Judge Kelly granted Resolution Copper’s intervention request,  
23 set a briefing schedule on the preliminary injunction motion (with Defendants’ responses  
24 due by August 5, 2025 and Plaintiffs’ reply due by August 11, 2025), and granted  
25 Defendants’ transfer requests. In the memorandum explaining the transfer decision, Judge  
26 Kelly noted, among other things, that Plaintiffs’ conduct “raises the specter of forum-  
27 shopping” because the Ninth Circuit’s decision in *Apache Stronghold* “would appear to  
28 doom many of their First Amendment and RFRA claims.” (Doc. 28 at 6.)

1 On August 5, 2025, after the transfer was processed, the undersigned held a  
 2 telephonic status conference with the parties. (Doc. 34.) Among other things, the Court  
 3 authorized the parties to file oversized briefs and explained that “because many of the  
 4 matters in this case seem to overlap with some of the arguments that are already being  
 5 raised in the two cases that are previously before me that I’ll be having the [preliminary  
 6 injunction] hearing tomorrow in, it’s not entirely clear to me that we’re going to need to  
 7 hold a separate hearing in this case. . . . I’m obviously going to be hard at work after the  
 8 hearing tomorrow working on the order in the other two cases. It seems to me that by the  
 9 time the reply comes in on this case on August 11th, I’ll have a much better sense on  
 10 whether an additional hearing is needed. So I’d be inclined to not schedule a hearing at  
 11 this time . . . .”<sup>2</sup>

## 12 DISCUSSION

13 The issues raised here overlap significantly with the issues raised in the preliminary  
 14 injunction briefing in *San Carlos* and *AMRC*. In the interest of brevity, the Court thus  
 15 incorporates, by reference, the analysis set forth in the August 15, 2025 order concerning  
 16 the applicable standards, the unique features of SALECA, and the complexities raised by  
 17 Defendants’ jurisdictional and threshold challenges.

### 18 I. The First *Winter* Factor

19 As discussed in the August 15, 2025 order, the first *Winter* factor addresses whether  
 20 Plaintiffs have shown a likelihood of success on the merits or at least serious questions  
 21 going to the merits.

#### 22 A. **RFRA And Free Exercise Claims**

23 Plaintiffs’ first argument is that they are likely to succeed on a RFRA-based  
 24 challenge to the land exchange. (Doc. 15-1 at 16-23.) Plaintiffs’ supporting arguments  
 25 rest on the premise that “the en banc majority’s” RFRA analysis in *Apache Stronghold* was

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26  
 27 <sup>2</sup> To that end, the Court had hoped to finalize and issue this order by August 15, 2025,  
 28 concurrently with the order in *San Carlos* and *AMRC*, and made substantial efforts to do  
 so. Unfortunately, due to the complexity and sheer volume of the number of issues raised  
 in those two cases and in this case, the finalization of this order took some extra time.

1 wrong. (*Id.*) Likewise, in their reply, Plaintiffs cite “Justices Gorsuch and Thomas’s  
2 persuasive criticism of *Apache Stronghold*’s substantial-burden holding” and argue that  
3 *Apache Stronghold*’s RFRA analysis “should be rejected by the Ninth Circuit or the  
4 Supreme Court.” (Doc. 40 at 6-7.)

5 Whatever force those arguments may have had when this action was pending in the  
6 District of Columbia (and thus governed by the law of the D.C. Circuit), they are unavailing  
7 now that it has been transferred to the District of Arizona (and thus governed by the law of  
8 the Ninth Circuit). In *Apache Stronghold*, the Ninth Circuit rejected—albeit by a narrow  
9 margin—a RFRA-based challenge to the land exchange that is effectively the same as the  
10 RFRA-based challenge being advanced here. It may be true, as Plaintiffs emphasize, that  
11 “six federal appellate judges and two Supreme Court Justices” have disagreed with the  
12 majority’s RFRA analysis (Doc. 15-1 at 19), but it still represents the law of the Ninth  
13 Circuit. Accordingly, it is binding here. *Hasbrouck v. Texaco, Inc.*, 663 F.2d 930, 933  
14 (9th Cir. 1981) (“District courts are bound by the law of their own circuit . . . no matter  
15 how egregiously in error they may feel their own circuit to be.”).

16 Plaintiffs’ second argument is that they are likely to succeed on a challenge under  
17 the Free Exercise Clause. (Doc. 15-1 at 24-27.) This argument is once again foreclosed  
18 by Ninth Circuit law, as *Apache Stronghold* held—albeit once again by a slim margin—  
19 that the plaintiff had “no likelihood of success on its Free Exercise claim.” *Apache*  
20 *Stronghold*, 101 F.4th at 1055. In support, the court cited “the Supreme Court’s controlling  
21 decision in” *Lyng v. Northwest Indian Cemetery Protective Association*, 485 U.S. (1988).  
22 *Id.* at 1049. The court concluded that “[t]he project challenged here is indistinguishable  
23 from that in *Lyng*.” *Id.* at 1051.

24 In their reply, Plaintiffs contend that *Apache Stronghold*’s Free Exercise analysis is  
25 no longer good law in light of the Supreme Court’s subsequent decision in *Mahmoud v.*  
26 *Taylor*, 145 S. Ct. 2332 (2025). (Doc. 40 at 9-11.) Plaintiffs are unlikely to succeed on  
27 this argument. In the Ninth Circuit, “a district court or a three-judge panel” is only “free  
28 to reexamine the holding of a prior panel in light of an inconsistent decision by a court of

1 last resort” when “the relevant court of last resort [has] undercut the theory or reasoning  
2 underlying the prior circuit precedent in such a way that the cases are clearly  
3 irreconcilable.” *Miller v. Gammie*, 335 F.3d 889, 899-900 (9th Cir. 2003) (en banc). As  
4 Defendants correctly point out (Doc. 33 at 11-12; Doc. 38 at 9-11), *Mahmoud* likely does  
5 not satisfy this demanding “clearly irreconcilable” standard for a host of reasons, including  
6 that *Mahmoud* did not purport to overrule or limit *Lyng*. *Mahmoud*, 145 S. Ct. at 2356-57  
7 (“We are also unpersuaded by the Board’s reliance . . . on our decisions in [*Bowen*] and  
8 *Lyng* . . . . These cases have no application here.”).<sup>3</sup>

9 Given these conclusions, it is unnecessary to address Defendants’ other bases for  
10 challenging Plaintiffs’ RFRA and Free Exercise claims. In light of *Apache Stronghold*,  
11 Plaintiffs have not established a likelihood of success on those claims or even serious  
12 questions going to the merits of those claims.

### 13 B. NEPA Claims

14 Plaintiffs’ third argument is that the FEIS “violates NEPA in two respects: (1) it  
15 exceeds NEPA’s clear length limit; and (2) it fails to comply with NEPA’s requirement to  
16 consider reasonable alternatives.” (Doc. 15-1 at 28.)

#### 17 1. Page Limit

18 As a threshold matter, although the Court concluded in the August 15, 2025 order  
19 that none of the NEPA-related challenges in *San Carlos* and *AMRC* were likely to satisfy  
20 the “final agency action” requirement, the analysis as to Plaintiffs’ page-limit challenge  
21 may be different. The Forest Service has now made a final decision regarding the length  
22 of the FEIS, and that particular decision is not tentative or subject to revision in the final  
23 record of decision (“ROD”).

24 Nevertheless, Plaintiffs are unlikely to succeed on the merits of their page-limit  
25 challenge. As background, in 2023, as part of the Building U.S. Infrastructure through

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26  
27 <sup>3</sup> As noted in earlier portions of this order, there is a pending GVR request before the  
28 Supreme Court in *Apache Stronghold* that is premised on *Mahmoud*. This Court obviously  
expresses no opinion on how the Supreme Court will or should resolve that request and  
confines its analysis to the limited “clearly irreconcilable” inquiry contemplated by *Miller*.

1 Limited Delays & Efficient Reviews (“BUILDER”) Act, Congress amended NEPA in  
 2 various ways. One of the new provisions enacted as part of the BUILDER Act provides as  
 3 follows:

4 (e) **Page Limits**

5 (1) **Environmental impact statements**

6 (A) **In general**

7 Except as provided in subparagraph (B), an environmental  
 8 impact statement shall not exceed 150 pages, not including any  
 9 citations or appendices.

10 (B) **Extraordinary complexity**

11 An environmental impact statement for a proposed agency  
 12 action of extraordinary complexity shall not exceed 300 pages,  
 13 not including any citations or appendices.

14 42 U.S.C. § 4336a(e). Recently, the Supreme Court cited this provision when explaining  
 15 that “federal law now *strictly* prohibits an agency’s EIS from going on endlessly.” *Seven*  
 16 *Cnty. Infrastructure Coal. v. Eagle Cnty., Colorado*, 145 S. Ct. 1497, 1512 n.3 (2025).

17 Plaintiffs contend the FEIS violates § 4336a(e) because it includes 1,010 pages of  
 18 substantive text, not including appendices. (Doc. 15-1 at 28.) Defendants respond that  
 19 § 4336a(e) is inapplicable because the FEIS preparation-process began long before  
 20 § 4336a(e) was enacted and statutes ordinarily apply only prospectively. (Doc. 33 at 12-  
 21 13; Doc. 38 at 18-19.) Resolution Copper further notes that, under the Department of  
 22 Agriculture’s regulations, the new procedural limitations enacted as part of the BUILDER  
 23 Act only apply to new projects or projects in the early stage of development: “USDA  
 24 subcomponents also have the discretion to begin applying the USDA NEPA regulations,  
 25 as revised, effective immediately upon publication of this interim final rule where it makes  
 26 sense to do so for new proposals and applications, or for existing proposals or applications  
 27 that are in the early stages of the applicable NEPA process and can easily transition to using  
 28 the revised USDA NEPA regulations.” 90 Fed. Reg. 29,632, 29,644 (July 3, 2025).

It is unclear whether § 4336a(e) applies here. Although the canon against

1 retroactivity is likely inapplicable for the reasons identified in Plaintiffs’ reply—as  
2 Plaintiffs note, “if a provision is . . . procedural, a presumption in favor of retroactive  
3 application attaches,” *Chenault v. USPS*, 37 F.3d 535, 538 (9th Cir. 1994)—it must not be  
4 overlooked that the unique form of FEIS required by SALECA differs from the sort of  
5 FEIS ordinarily contemplated by NEPA. As discussed in more detail in the August 15,  
6 2025 order, SALECA expressly required the Forest Service to address certain topics in the  
7 FEIS in addition to environmental consequences. 16 U.S.C. § 539p(c)(9)(C) (“The  
8 environmental impact statement prepared under subparagraph (B) shall . . . assess the  
9 effects of the mining and related activities on the Federal land conveyed to Resolution  
10 Copper under this section on the cultural and archeological resources that may be located  
11 on the Federal land; and . . . identify measures that may be taken, to the extent practicable,  
12 to minimize potential adverse impacts on those resources, if any.”). The Ninth Circuit has  
13 recognized that the FEIS required by SALECA is thus more expansive than an ordinary  
14 FEIS: “*Congress supplemented the ordinary NEPA requirements for such statements and*  
15 *required that the EIS for the land transfer also ‘assess the effect of the mining’ on ‘cultural*  
16 *and archeological resources’ in the area and ‘identify measures . . . to minimize potential*  
17 *adverse impacts on those resources.’” *Apache Stronghold*, 101 F.4th at 1047 (emphasis*  
18 *added). If SALECA requires the Forest Service to prepare a FEIS that covers additional*  
19 *topics beyond the topics ordinarily addressed in a FEIS, it stands to reason that the usual*  
20 *page limits applicable to FEISs may not be applicable here.*<sup>4</sup>

21 Yet even assuming that the page limits specified in § 4336a(e) applied and that the  
22 Forest Service violated those limits, the Court agrees with the Federal Defendants’  
23 assertion that Plaintiffs likely cannot show “they were injured by receiving more  
24 information than they were otherwise entitled to.” (Doc. 33 at 13.) “The APA directs us  
25 to take due account of the rule of prejudicial error. . . . The harmless-error analysis asks  
26 whether the [agency’s failure] materially impeded NEPA’s goals—that is, whether the

27 \_\_\_\_\_  
28 <sup>4</sup> In a related vein, SALECA places a qualification on the Forest Service’s obligation  
to “carry out the land exchange in accordance with [NEPA],” providing that this obligation  
is “[e]xcept as otherwise provided in this section.” 16 U.S.C. § 539p(c)(9)(A).

1 error caused the agency not to be fully aware of the environmental consequences of the  
2 proposed action, thereby precluding informed decisionmaking and public participation, or  
3 otherwise materially affected the substance of the agency’s decision.” *Idaho Wool*  
4 *Growers Ass’n v. Vilsack*, 816 F.3d 1095, 1104 (9th Cir. 2016). *See also Laguna*  
5 *Greenbelt, Inc. v. U.S. Dep’t of Transp.*, 42 F.3d 517, 527 (9th Cir. 1994), *as amended on*  
6 *denial of reh’g* (1994) (“In determining whether NEPA has been violated, we must look to  
7 the ultimate harm NEPA seeks to prevent: the risk of damage to the environment that  
8 results if the agency fails to properly and thoroughly evaluate the environmental impacts  
9 of a proposed project.”).

10 In *Ground Zero Ctr. for Non-Violent Action v. United States Dep’t of Navy*, 860  
11 F.3d 1244 (9th Cir. 2017), the plaintiffs sought a preliminary injunction to stop the Navy  
12 from building an “explosives handling wharf” for maintenance of submarines and nuclear  
13 missiles. *Id.* at 1248-49. “[T]he Navy prepared and published an EIS,” which “[a]t several  
14 points . . . referenced appendices.” *Id.* However, “[t]hree of these appendices were  
15 redacted in their entirety in the publicly released version of the EIS.” *Id.* During litigation,  
16 the appendices were later disclosed, but the initial “failure to disclose the . . . appendix  
17 information violated NEPA,” which requires “disclosure to the fullest extent possible.” *Id.*  
18 at 1252 (cleaned up). “Nevertheless,” the Ninth Circuit concluded that “the Navy’s failure  
19 to disclose the portions of the appendices at issue was harmless error” because the plaintiffs  
20 had “not specified any information in the now-revealed portions of [the appendices] that  
21 would have made a difference in agency decisionmaking or public participation” or  
22 otherwise “demonstrated that NEPA’s goals were materially impeded.” *Id.* at 1253.

23 Here, too, Plaintiffs have not demonstrated how the publishing of a shorter FEIS  
24 would have made a difference in the agency decisionmaking or otherwise impede NEPA’s  
25 goals. Plaintiffs argue that the overly-long FEIS caused harm by “giving [them] only 60  
26 days to digest and challenge the content of a flood-the-zone EIS” and “effectively  
27 stripp[ing] [them] of their right to receive ‘assurance that the agency has indeed considered  
28 environmental concerns in its decisionmaking process.’” (Doc. 40 at 12-13.) To support  
this argument, Plaintiffs cite *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332

1 (1989). The full quote from *Robertson* reads:

2  
3 Publication of an EIS, both in draft and final form, also serves a larger  
4 informational role. It gives the public the assurance that the agency has  
5 indeed considered environmental concerns in its decisionmaking process  
6 and, perhaps more significantly, provides a springboard for public comment.  
7 Thus, in this case the final draft of the Early Winters Study reflects not only  
8 the work of the Forest Service itself, but also the critical views of the  
9 Washington State Department of Game, the Methow Valley Citizens  
10 Council, and Friends of the Earth, as well as many others, to whom copies of  
11 the draft Study were circulated.

12 *Id.* at 349 (cleaned up).

13 Although *Robertson* broadly supports the notion that NEPA’s purpose is to facilitate  
14 “public participation,” it does not support Plaintiffs’ argument that NEPA is intended to  
15 expedite and enable emergency litigation. Instead, *Robertson* suggests that the type of  
16 “public participation” envisioned by NEPA is public access to information and “public  
17 comment.” In this case, the Forest Service provided both.<sup>5</sup>

18 It is also important to take stock of other provisions of the BUILDER Act, passed  
19 alongside the new page limits, when assessing how those page limits intersect with NEPA’s  
20 broader goals and purposes. For example, the new § 4336a(g) provides that:

21 (1) **In general**

22 Except as provided in paragraph (2), with respect to a proposed agency action, a  
23 lead agency shall complete, as applicable—

24 (A) the environmental impact statement not later than the date that is 2  
25 years after the sooner of, as applicable—

26 (i) the date on which such agency determines that section

27 <sup>5</sup> Further, as Resolution Copper points out: “Plaintiffs’ assertion that the lengthy EIS  
28 is too long for the public to tackle . . . ignores the 32 page executive summary that captures  
the essence of the entire study.” (Doc. 38 at 19.) This argument also supports a finding of  
harmless error. Despite the voluminous nature of the FEIS, Plaintiffs here (as well as the  
plaintiffs in *San Carlos* and *AMRC*) were still able to seek relief and the Court was still  
able to review their challenges within the 60-day statutory window. Plaintiffs’ contrary  
argument places form over function and fails to explain how a 300-page EIS with 3,000  
pages of appendices—as permitted by the statute—would be materially different from the  
document provided here.

1 4332(2)(C) of this title requires the issuance of an  
2 environmental impact statement with respect to such action;

3 (ii) the date on which such agency notifies the applicant that the  
4 application to establish a right-of-way for such action is  
5 complete; and

6 (iii) the date on which such agency issues a notice of intent to  
7 prepare the environmental impact statement for such action;  
8 and

8 . . .

9 (2) **Delay**

10 A lead agency that determines it is not able to meet the deadline described in  
11 paragraph (1) may extend such deadline, in consultation with the applicant, to  
12 establish a new deadline that provides only so much additional time as is necessary  
13 to complete such environmental impact statement or environmental assessment.

14 42 U.S.C. § 4336a(g). This provision suggests the new page limits are part of a broader  
15 effort to *expedite* the EIS process. *Seven County Infrastructure Coalition*, 145 S. Ct. at  
16 1512 n.3 (“Under that BUILDER Act, an EIS shall not exceed 150 pages and must be  
17 completed in 2 years or less. That Act strongly reinforces the basic principles that NEPA,  
18 correctly interpreted, already embodied but that have been too often overlooked.”) (cleaned  
19 up). The remedy that Plaintiffs seek here—vacating the FEIS so the Forest Service can  
20 craft a new version of that document that is simply shorter in length—would not advance  
21 that goal.

22 For these reasons, Plaintiffs are unlikely to succeed on their page-limit challenge.

23 2. Alternative Mining Methods

24 The other alleged NEPA violation raised by Plaintiffs is that the FEIS “neglected to  
25 study, develop, and describe . . . the technically and economically feasible alternatives to  
26 turning Oak Flat into a crater.” (Doc. 15-1 at 28, cleaned up.) More specifically, Plaintiffs  
27 fault the Forest Service for uncritically accepting Resolution Copper’s proposed mining  
28 method without considering and analyzing alternative mining methods that might be less  
destructive. (*Id.* at 28-30.) Plaintiffs also contend the FEIS is internally inconsistent on

1 why the Forest Service accepted this mining method, stating at times that the decision was  
2 intended to boost Resolution Copper’s profits and productivity but stating at other times  
3 that the agency “did not factor profitability into the analysis.” (*Id.*)

4 This challenge is unlikely to succeed on the merits. As an initial matter, the Federal  
5 Defendants argue that because the Forest Service lacks authority to regulate the mining  
6 operations that will occur on private land following the land exchange, the Forest Service  
7 was not required to provide any analysis in the FEIS of the environmental consequences  
8 of the mining methods that Resolution Copper may use as part of those operations or any  
9 analysis of alternative mining methods. (Doc. 33 at 13.) Plaintiffs’ reply does not appear  
10 to address or dispute this point. *Seven County Infrastructure Coalition*, 145 S. Ct. at 1516  
11 (“[A]gencies are not required to analyze the effects of projects over which they do not  
12 exercise regulatory authority.”). The Forest Service also emphasized this point in the  
13 DROD. (*AMRC*, Doc. 94-2 at 16 [DROD page 5: “Mining operations within the area  
14 conveyed by the Forest Service in the exchange are not subject to regulation by the Forest  
15 Service . . . .].)

16 Moreover, even if the Forest Service’s evaluation of alternative mining methods  
17 could somehow affect the Forest Service’s discretionary decisions as to other matters (such  
18 as decisions regarding pipelines, permits, and the like), the Forest Service still has not made  
19 any final decisions regarding those matters, which will eventually be set forth in the ROD.  
20 As a result, any challenge along those lines would likely fail based on the absence of “final  
21 agency action,” as explained in more detail in the August 15, 2025 order.

22 Finally, putting aside those obstacles, Plaintiffs’ substantive criticisms of the  
23 portions of the FEIS discussing alternative mining methods<sup>6</sup> are unlikely to succeed on the  
24 merits. In the FEIS, the Forest Service explained that it had “received detailed comments  
25 on our assessment of alternative mining techniques other than block caving; the most  
26 commonly noted was cut-and-fill mining. . . . Ultimately, we confirmed our decision to

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27 <sup>6</sup> Although the Forest Service may not have been required, for the reasons stated  
28 above, to assess the environmental consequences of alternative mining methods, it still  
chose to do so.

1 dismiss alternative mining techniques from detailed analysis. Almost all industry mining  
2 guidance indicates alternative mining techniques are not appropriate for a deposit like the  
3 Resolution Copper deposit, and the trade-offs are unreasonable. However, we added  
4 further description here due to the interest in this topic.” (*San Carlos*, Doc. 105-9 at 95  
5 [FEIS page 50].) The Forest Service continued:

6 Based on review of industry guidance for selection of mining methods, block  
7 caving is the standard mining method used in the industry for ore bodies with  
8 the grade, size, depth, and geological characteristics of the Resolution  
9 Copper deposit. The ore and host rock characteristics that are favorable to  
10 other underground techniques differ from the Resolution Copper deposit.  
11 While physically almost any technique could be undertaken, it is unlikely  
12 that any of these other underground techniques would be chosen as a  
13 reasonable technique for a similar deposit.

14 Aside from appropriateness when compared to industry standards, use of any  
15 of these alternative underground mining techniques would result in higher  
16 per-ton mining costs, and as a result the cutoff grade for the deposit would  
17 need to be higher to be economically feasible. An increase in the cutoff grade  
18 from 1 percent to 2 percent removes an estimated 80 percent of the tonnage  
19 of the Resolution Copper deposit from consideration for development. The  
20 tonnage is likely to be even lower at a 2 percent cutoff grade, as many of  
21 these areas of high-grade ore are not contiguous or continuous. We found  
22 that accepting this level of reduction to accommodate an alternative mining  
23 technique is not economically feasible and would be unreasonable.

24 Based on public comments, the primary misunderstanding is that the decision  
25 not to analyze alternative mining techniques is based on profit, and that we  
26 are prioritizing profitability over environmental protection. This is not the  
27 case. Analysis of profitability of the mine was not conducted, and does not  
28 factor into the NEPA analysis or the determination of alternatives. Rather,  
our decision is based on what is reasonable under regulations and policy. We  
found that forgoing 80 percent of the ore deposit to accommodate an  
alternative mining technique is an unreasonable outcome.

(*Id.* at 95-96 [FEIS pages 50-51].)

In Appendix F to the FEIS, the Forest Service provided further technical analysis of  
these topics. (*San Carlos*, Doc. 107-3 at 224-27 [FEIS pages F-2 through F-5].) That  
analysis cross-referenced and discussed various studies, including the “Resolution Copper

1 Project and Land Exchange Environmental Impact Statement Final Alternatives Evaluation  
2 Report (SWCA Environmental Consultants 2017a).” (*Id.* at 225 [FEIS page F-3].)

3 For these reasons, it is evident that the Forest Service took the sort of “hard look”  
4 at alternative mining methods that, to the extent any such analysis was even required here,  
5 would be sufficient under NEPA. Although Plaintiffs may disagree with the Forest  
6 Service’s conclusions regarding the feasibility of those alternative mining methods,  
7 “[b]lack-letter administrative law instructs that when an agency makes those kinds of . . .  
8 predictive or scientific judgments, and decides what qualifies as . . . feasible or the like, a  
9 reviewing court must be at its ‘most deferential.’” *Seven County Infrastructure Coalition*,  
10 145 S. Ct. at 1512. Courts must also resist the urge to “fly-speck” the agency’s analysis  
11 and “act[] as a type of omnipotent scientist.” *Audubon Society of Portland v. Haaland*, 240  
12 F.4th 967, 984 (9th Cir. 2022). In a related vein, it fell within NEPA’s “broad zone of  
13 reasonableness,” *Seven County Infrastructure Coalition*, 145 S. Ct. at 1513, for the Forest  
14 Service to consider the cost and productivity of the alternative mining methods when  
15 assessing their feasibility. Such consideration was particularly reasonable here because  
16 Congress indicated in SALECA that it expected the land exchange to result in “the  
17 extraction of minerals in commercial quantities by Resolution Copper.” 16 U.S.C.  
18 § 539p(c)(9)(D)(ii). Plaintiffs may be correct that “Congress said nothing about *how much*  
19 copper the project should provide” and did not “inten[d] to maximize Resolution’s bottom  
20 line” (Doc. 40 at 13), but it was still reasonable for the Forest Service to consider, as part  
21 of the feasibility analysis, the cost and productivity of alternative mining methods and how  
22 those considerations would affect the mine’s output and productivity. *Cf. Robertson*, 490  
23 U.S. at 350-51 (“If the adverse environmental effects of the proposed action are adequately  
24 identified and evaluated, the agency is not constrained by NEPA from deciding that other  
25 values outweigh the environmental costs. In this case, for example, it would not have  
26 violated NEPA if the Forest Service, after complying with the Act’s procedural  
27 prerequisites, had decided that the benefits to be derived from downhill skiing at Sandy  
28 Butte justified the issuance of a special use permit, notwithstanding the loss of 15 percent,

1 50 percent, or even 100 percent of the mule deer herd.”).

2 **C. Consultation Claim**

3 Plaintiffs’ final argument is that the Forest Service violated its consultation duties  
4 under § 106 of NHPA by failing to address certain mitigation measures proposed by ACHP,  
5 including “the specific suggestion of incentivizing alternate mining techniques that would  
6 prevent the crater from destroying the land at Oak Flat.” (Doc. 15-1 at 30-32.)

7 Plaintiffs are unlikely to succeed on this claim. As discussed in the August 15, 2025  
8 order, the Forest Service consulted extensively with ACHP before ACHP terminated the  
9 consultations in February 2021. The Secretary of Agriculture also provided a detailed  
10 written response in April 2025 to the post-termination comments that ACHP transmitted  
11 in March 2021.

12 Plaintiffs focus on ACHP’s second comment, which encouraged the Department of  
13 Agriculture to “use further discussions with Indian tribes and other stakeholders to develop  
14 and evaluate alternatives and further modifications to the undertaking that might avoid  
15 adverse effects while also pursuing additional steps to modify or prevent the land transfer”  
16 and then identified several areas of recommended emphasis, including “a reassessment of  
17 alternative and more sustainable mining techniques in an effort to prevent subsidence at  
18 Oak Flat.” (*San Carlos*, Doc. 109-5 at 8.) In the portion of the April 2025 letter responding  
19 to ACHP’s second comment, the Secretary of Agriculture provided four lengthy, single-  
20 spaced paragraphs. (*San Carlos*, Doc. 82-15 at 3-4.) The final paragraph reads: “It is also  
21 important to recognize that SALECA limits the authority the USDA will have over most  
22 elements of the proposed Resolution Copper Mine (RCM) because once the land is  
23 exchanged, the project will be almost entirely on private land.” (*Id.* at 4.) Read in proper  
24 context, this is a response to ACHP’s earlier comment about pursuing alternative mining  
25 methods—as discussed in the preceding section of this order, the Forest Service lacks  
26 authority to compel Resolution Copper to utilize a particular mining method once the land  
27 exchange is completed.

28 As discussed in greater detail in the August 15, 2025 order, it follows that the Forest

1 Service likely did all that is required under § 106: it “demonstrate[d]” via the April 2025  
2 letter that “it ha[d] read and considered” ACHP’s comments and “gave the ACHP’s  
3 conclusion genuine attention.” *Concerned Citizens All., Inc. v. Slater*, 176 F.3d 686, 696  
4 (3d Cir. 1999).

5 II. The Remaining Winter Factors

6 The remainder of the preliminary injunction analysis mirrors the analysis set forth  
7 in Parts II, III, and IV of the August 15, 2025 order, which is incorporated by reference  
8 here. More specifically, (1) the analysis need not go any further in light of Plaintiffs’ failure  
9 to satisfy the first *Winter* factor; and (2) even if Plaintiffs had established serious questions  
10 going to the merits, the Court would deny injunctive relief based on the remaining *Winter*  
11 factors—although Plaintiffs will suffer irreparable harm in the absence of a preliminary  
12 injunction, the public interest does not tip sharply in their favor (nor does the balance of  
13 equities).

14 III. Request For Injunction Pending Appeal

15 Plaintiffs’ alternative request for an injunction pending appeal (Doc. 43) is denied  
16 for the same reasons as the requests for an injunction pending appeal in *San Carlos* and  
17 *AMRC* (as discussed in Part V of the August 15, 2025 order). Although this is an important  
18 case of an unusual magnitude, involves sympathetic Plaintiffs, and raises some compelling  
19 equities, the Court does not construe Rule 62(d) as authorizing an injunction pending  
20 appeal absent a stronger showing on the merits. For similar reasons, the Court is  
21 unpersuaded that it would be appropriate to “enter a limited, 14-day stay . . . to give the  
22 Ninth Circuit an opportunity to address Plaintiffs’ request for an emergency injunction on  
23 a less time-compressed time schedule.” (Doc. 43 at 2.) Granting that relief would  
24 effectively be granting a TRO, and the standard for granting a TRO is simply not met here.

25 It is unfortunate that Plaintiffs will have very little time to seek emergency relief  
26 from the Ninth Circuit before the land exchange is scheduled to occur on August 19, 2025  
27 (and the judges of the Ninth Circuit will have even less time to consider that request), but  
28 the Court has made extensive efforts to resolve the oversized preliminary injunction motion

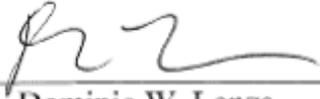
1 in this case (as well as the two oversized motions in *San Carlos* and *AMRC*) as  
2 expeditiously as possible so there is at least some period of time for the Ninth Circuit to  
3 consider these issues.

4 Accordingly,

5 **IT IS ORDERED** that:

- 6 1. Plaintiffs' motion for preliminary injunction (Doc. 15) is **denied**.
- 7 2. Plaintiffs' motion for an injunction pending appeal (Doc. 43) is **denied**.

8 Dated this 17th day of August, 2025.

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13 Dominic W. Lanza  
14 United States District Judge  
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1 **WO**

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6 **IN THE UNITED STATES DISTRICT COURT**  
7 **FOR THE DISTRICT OF ARIZONA**  
8

9 San Carlos Apache Tribe,  
10 Plaintiff,

No. CV-21-00068-PHX-DWL  
**ORDER**

11 v.  
12 United States Forest Service, et al.,  
13 Defendants.

14 Arizona Mining Reform Coalition, et al.,  
15 Plaintiffs,

No. CV-21-00122-PHX-DWL  
**ORDER**

16 v.  
17 United States Forest Service, et al.,  
18 Defendants.  
19

20  
21 **INTRODUCTION**

22 This order addresses the sometimes overlapping motions for preliminary injunction  
23 filed in two cases: (1) *San Carlos Apache Tribe v. United States Forest Service et al.*, No.  
24 21-cv-68-PHX-DWL (hereinafter, “*San Carlos*”), and (2) *Arizona Mining Reform*  
25 *Coalition v. United States Forest Service et al.*, No. 21-cv-122-PHX-DWL (hereinafter,  
26 “*AMRC*”). Each motion seeks an injunction to block a land exchange, now scheduled to  
27 occur on August 19, 2025, that Congress authorized over a decade ago, as part of the  
28 National Defense Authorization Act for Fiscal Year 2015 (“*NDAA*”).

More specifically, § 3003 of the *NDAA*, known as the Southeast Arizona Land

1 Exchange and Conservation Act (“SALECA”), authorizes the exchange of 2,422 acres of  
2 federal land in the Tonto National Forest for land held by a private company, Resolution  
3 Copper (“Resolution Copper”). *See also* 16 U.S.C. § 539p(a) (“The purpose of this section  
4 is to authorize, direct, facilitate, and expedite the exchange of land between Resolution  
5 Copper and the United States.”). The federal land to be transferred to Resolution Copper  
6 includes an Apache ceremonial ground called *Chí’chil Bildagoteel*. That area, known in  
7 English as Oak Flat, “is a site of great spiritual value to the Western Apache Indians, who  
8 believe that it is indispensable to their religious worship,” but “also sits atop the world’s  
9 third-largest deposit of copper ore.” *Apache Stronghold v. United States*, 101 F.4th 1036,  
10 1044 (9th Cir. 2024) (en banc). Congress’s intent in authorizing the land exchange was  
11 “[t]o take advantage of that deposit” by enabling Resolution Copper to “mine the ore.” *Id.*

12 Congress weighed considerable tradeoffs when deciding whether to approve the  
13 land exchange. On the one hand, the contemplated mining activity is expected to produce  
14 significant economic benefits in Arizona, as “the mine is projected to directly employ 1,434  
15 workers . . . [and] increase the average annual economic value added in Arizona by about  
16 \$1.2 billion.” (*San Carlos*, Doc. 105-9 at 31-32.) Additionally, and perhaps more  
17 important, the mine is also expected to promote America’s national security interests, by  
18 ensuring domestic access to a mineral that is essential to energy distribution, generation,  
19 and storage.

20 On the other hand, it is difficult to overstate just how profoundly the land exchange  
21 will undermine the ability of members of the San Carlos Apache Tribe (“the Tribe”) to  
22 practice their religion. Put simply, the mining techniques that will be used to extract the  
23 copper will “turn Oak Flat into a massive hole in the ground. . . . It is undisputed that the  
24 government’s plan will permanently destroy the Apaches’ historical place of worship,  
25 preventing them from ever again engaging in religious exercise at Oak Flat.” *Apache*  
26 *Stronghold v. United States*, 145 S. Ct. 1480, 1480 (2025) (Gorsuch, J., dissenting from the  
27 denial of certiorari) (cleaned up). “[T]he government’s plan will effectively end Apache  
28 religious existence as we know it. Even the government has acknowledged that the

1 destruction of Oak Flat will inflict indescribable hardship on the Apaches.” *Id.* at 1488  
2 (cleaned up).

3 The contemplated mining activity also has the potential to cause potentially  
4 devastating environmental effects. For example, Resolution Copper’s mining activity will  
5 generate massive quantities of toxic waste material, known as tailings, that will need to be  
6 pumped through miles of pipelines before reaching a tailings storage facility. “There is  
7 public apprehension over the creation, and type, of a tailings embankment for the tailings  
8 storage facility. The catastrophic collapse of [a] tailings dam in Brazil in January 2019,  
9 resulting in 259 confirmed fatalities with 11 people still missing, has heightened concerns.”  
10 (*San Carlos*, Doc. 105-9 at 7.) “The consequences of a catastrophic failure and the  
11 downstream flow of tailings would include possible loss of life and limb, destruction of  
12 property, displacement of large downstream populations, disruption of the Arizona  
13 economy, contamination of soils and water, and risk to water supplies and key water  
14 infrastructure like the CAP [Central Arizona Project] canal.” (*Id.* at 30.)

15 Additionally, the contemplated mining activity will require tremendous quantities  
16 of water, which is of particular concern in drought-stricken Arizona. (*Id.* at 7 [“Water use  
17 is a major concern among the public, other government agencies, and interested parties.”].)  
18 “Over the mine life, 87,000 acre-feet of water would be pumped from the mine, and  
19 between 180,000 and 590,000 acre-feet of makeup water would be pumped from the Desert  
20 Wellfield in the East Salt River valley. . . . The wellfield pumping would incrementally  
21 contribute to the lowering of groundwater levels and cumulatively reduce overall  
22 groundwater availability in the area.” (*Id.* at 28.) This water use may result in alarming  
23 long-term consequences. (*AMRC*, Doc. 93-1 at 169 [“[U]ltimately, long-term use of  
24 groundwater may become unsustainable . . .”].)

25 Given these stark tradeoffs, it should come as no surprise that the land exchange has  
26 been the subject of intense opposition and an array of legal challenges. In 2019, several  
27 members of Congress attempted, unsuccessfully, to introduce legislation to overturn  
28 SALECA. (*San Carlos*, Doc. 105-9 at 7.) In 2021, when the land exchange appeared to

1 be imminent, three lawsuits (including these two lawsuits) were filed in the District of  
2 Arizona seeking to enjoin it. In the other lawsuit, a nonprofit organization alleged that the  
3 land exchange would violate tribal members’ rights under the First Amendment’s Free  
4 Exercise Clause, the Religious Freedom Restoration Act (“RFRA”), and an 1852 treaty  
5 between the United States and the Tribe. *Apache Stronghold v. United States et al.*, No.  
6 21-cv-50-PHX-SPL (hereinafter, “*Apache Stronghold*”). The procedural history  
7 surrounding *Apache Stronghold* is summarized in more detail in a previous order in this  
8 case. (*San Carlos*, Doc. 99 at 3-6.) In a nutshell, the Ninth Circuit narrowly rejected the  
9 plaintiff’s claims in a 6-5 *en banc* decision issued in March 2024 and the Supreme Court  
10 denied certiorari in May 2025, albeit only after relisting the matter for consideration more  
11 than a dozen times and over the dissent of Justices Gorsuch and Thomas.

12 In light of those developments, the plaintiffs in these two actions have not advanced  
13 any religion-based claims in their pending motions. Instead, the claims underlying those  
14 motions broadly fall into the following four categories:

15 1. Appraisal Claims: Under SALECA, the United States Forest Service  
16 (“Forest Service”) must perform an appraisal to calculate the value of the federal and non-  
17 federal land to be exchanged. 16 U.S.C. § 539p(c)(4). SALECA also creates an  
18 “equalization process” providing that if the federal land is more valuable than the non-  
19 federal land, Resolution Copper must make up the difference by conveying additional land  
20 and/or “mak[ing] a cash payment.” *Id.* § 539p(c)(5)(B)(i). According to AMRC, the Forest  
21 Service violated its appraisal-related duties under SALECA by failing to account for the  
22 value of the copper deposits underlying one of the federal parcels to be exchanged, known  
23 as the Mining Claim Zone (“MCZ”) parcel—an omission that resulted in the Forest Service  
24 “low-ball[ing] the appraised value” of that parcel by potentially billions of dollars. (*AMRC*,  
25 Doc. 97 at 10.)

26 2. NEPA Claims: SALECA provides that “[p]rior to conveying Federal land  
27 under this section, the Secretary [of Agriculture] shall prepare a single environmental  
28 impact statement under the National Environmental Policy Act of 1969 [‘NEPA’], which

1 shall be used as the basis for all decisions under Federal law related to the proposed mine  
2 and the Resolution mine plan of operations and any related major Federal actions  
3 significantly affecting the quality of the human environment, including the granting of any  
4 permits, rights-of-way, or approvals for the construction of associated power, water,  
5 transportation, processing, tailings, waste disposal, or other ancillary facilities.” 16 U.S.C.  
6 § 539p(c)(9)(B). On June 20, 2025, the Forest Service published its voluminous final  
7 environmental impact statement (“FEIS”) related to the land exchange,<sup>1</sup> as well as its draft  
8 record of decision (“DROD”). In their motions, AMRC and the Tribe identify an array of  
9 perceived shortcomings and omissions in the FEIS, which they contend violate NEPA.

10 3. Consultation Claims: SALECA provides that “[t]he Secretary shall engage  
11 in government-to-government consultation with affected Indian tribes concerning issues of  
12 concern to the affected Indian tribes related to the land exchange.” 16 U.S.C.  
13 § 539p(c)(3)(A). Additionally, under section 106 of the National Historic Preservation Act  
14 (“NHPA”), agencies “shall take into account the effect of an undertaking on any historic  
15 property” and afford the Advisory Council on Historic Preservation (“ACHP”) “a  
16 reasonable opportunity to comment with regard to the undertaking.” *Tohono O’odham*  
17 *Nation v. U.S. Dept. of the Interior*, 138 F.4th 1189, 1193 (9th Cir. 2025) (cleaned up).  
18 According to the Tribe, the Forest Service did not fulfill these consultation duties before  
19 publishing the FEIS.

20 4. NFMA Claims: The National Forest Management Act (“NFMA”) includes  
21 a provision that requires the Forest Service to prepare a land and resource management  
22 plan for each national forest. 16 U.S.C. § 1604(a). Such a plan exists for the Tonto  
23 National Forest (the “Forest Plan”) and was last amended in 2023. In the FEIS, the Forest  
24 Service acknowledges that some of the contemplated mining-related activities will occur  
25 within the Tonto National Forest and thus require an amendment of the Forest Plan (*San*

26  
27 <sup>1</sup> “The FEIS consists of six volumes. It includes a nine-chapter, 1,000-page body and  
28 twenty-one appendices, which together span more than 2,500 pages. Over the course of  
nearly 400 pages in Appendix R, the FEIS responds to the more than 29,000 comments the  
agency received on the Draft EIS.” (*San Carlos*, Doc. 114 at 4.)

1 *Carlos*, Doc. 105-9 at 11, 54), and the DROD proposes 16 amendments to the Forest Plan  
2 that would be required for approving Skunk Camp as the preferred tailings storage facility  
3 alternative (*AMRC*, Doc. 87-3 at 19-25). According to *AMRC*, this approach violates  
4 NFMA’s forest planning regulations, which appear at 36 C.F.R. Part 219, because those  
5 regulations require a public notice-and-comment process “which did not occur here” before  
6 any forest plan may be amended. (*AMRC*, Doc. 87 at 28.)

7 On August 6, 2025, the Court held a lengthy hearing to hear oral argument from the  
8 parties. Having given careful consideration to the parties’ arguments, the Court now  
9 concludes that Plaintiffs have not established a likelihood of success on any of their claims.  
10 In all cases, this determination is based on an evaluation of the merits. Additionally, in  
11 some cases, this determination is also based on various jurisdictional and other threshold  
12 issues identified by the Federal Defendants and Resolution Copper.

13 Moreover, even if the merits of some of Plaintiffs’ claims could be said to satisfy  
14 the lesser “serious questions” standard, the Court would still decline to issue injunctive  
15 relief. Although Plaintiffs have sufficiently established the second preliminary-injunction  
16 factor (a likelihood of irreparable injury in the absence of injunctive relief), the remaining  
17 factors (balance of hardships and public interest) present a mixed picture and thus do not  
18 tip sharply in Plaintiffs’ favor. It is evident that Plaintiffs and their supporters profoundly  
19 disagree with Congress’s decision to authorize the land exchange, which may generate  
20 significant economic and national security benefits but will also “effectively end Apache  
21 religious existence as we know it” and pose significant environmental threats.  
22 Nevertheless, in our system of government, the political branches are responsible for  
23 weighing these sorts of competing objectives and determining how to balance them. Here,  
24 Congress chose to pursue the land exchange despite the existence of many significant  
25 tradeoffs and the President chose to ratify Congress’s choice by signing the law into effect.  
26 As a result, the Court must accept that this choice advances the public interest and operate  
27 from that premise. *United States v. Oakland Cannabis Buyers’ Co-op.*, 532 U.S. 483, 497  
28 (2001) (“[A] court sitting in equity cannot ignore the judgment of Congress, deliberately

1 expressed in legislation. . . . Courts of equity cannot, in their discretion, reject the balance  
2 that Congress has struck in a statute.”) (cleaned up). A NEPA lawsuit is not the proper  
3 forum for second-guessing the wisdom of Congress’s decision to pursue the land exchange.  
4 *Seven County Infrastructure Coalition v. Eagle County, Colo.*, 145 S. Ct. 1497, 1511  
5 (2025) (“Plaintiffs’ policy objections to this 88-mile Utah railroad may or may not be  
6 persuasive. But . . . [t]he political process, and not NEPA, provides the appropriate forum  
7 in which to air policy disagreements.”) (cleaned up).

### 8 LEGAL STANDARD

9 “A preliminary injunction is an extraordinary and drastic remedy, one that should  
10 not be granted unless the movant, by a clear showing, carries the burden of persuasion.”  
11 *Lopez v. Brewer*, 680 F.3d 1068, 1072 (9th Cir. 2012) (cleaned up). *See also Winter v.*  
12 *Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24 (2008) (“A preliminary injunction is an  
13 extraordinary remedy never awarded as of right.”) (citation omitted); *Dymo Industries, Inc.*  
14 *v. Tapeprinter, Inc.*, 326 F.2d 141, 143 (9th Cir. 1964) (“The grant of a preliminary  
15 injunction is the exercise of a very far reaching power never to be indulged in except in a  
16 case clearly warranting it.”).

17 “A plaintiff seeking a preliminary injunction must establish [1] that he is likely to  
18 succeed on the merits, [2] that he is likely to suffer irreparable harm in the absence of  
19 preliminary relief, [3] that the balance of equities tips in his favor, and [4] that an injunction  
20 is in the public interest.” *Winter*, 555 U.S. at 20. However, “if a plaintiff can only show  
21 that there are serious questions going to the merits—a lesser showing than likelihood of  
22 success on the merits—then a preliminary injunction may still issue if the balance of  
23 hardships tips sharply in the plaintiff’s favor, and the other two *Winter* factors are  
24 satisfied.” *Shell Offshore, Inc. v. Greenpeace, Inc.*, 709 F.3d 1281, 1291 (9th Cir. 2013)  
25 (cleaned up).<sup>2</sup> Additionally, when, as here, “a government agency is a party,” “the final

26 <sup>2</sup> The existence of serious questions often turns on the presence of disputed factual  
27 issues. *Assurance Wireless USA, L.P. v. Reynolds*, 100 F.4th 1024, 1031 (9th Cir. 2024)  
28 (“[P]arties do not show serious questions when they raise a merely plausible claim, nor can  
a district court forgo legal analysis just because it has not identified precedent that places  
the question beyond debate. This less demanding merits standard requires serious factual  
questions that need to be resolved in the case.”) (cleaned up); *Alliance for the Wild Rockies*

1 two injunction factors—the balance of equities and the public interest—merge.”  
 2 *Assurance Wireless USA, L.P. v. Reynolds*, 100 F.4th 1024, 1031 (9th Cir. 2024).

3 Regardless of which standard applies, the movant “carries the burden of proof on  
 4 each element of either test.” *Env’t. Council of Sacramento v. Slater*, 184 F. Supp. 2d 1016,  
 5 1027 (E.D. Cal. 2000).

## 6 ANALYSIS

### 7 I. First Winter Factor

8 The analysis begins with the first *Winter* factor—whether Plaintiffs have shown a  
 9 likelihood of success on the merits. *Roe v. Critchfield*, 137 F.4th 912, 922 (9th Cir. 2025)  
 10 (“Likelihood of success on the merits is the most important *Winter* factor and is a threshold  
 11 inquiry.”) (cleaned up).

12 As noted, the Federal Defendants and Resolution Copper have, in addition to  
 13 addressing Plaintiffs’ arguments on the merits, identified various jurisdictional and other  
 14 threshold reasons why, in their view, Plaintiffs will not be able to succeed on their claims.  
 15 Those arguments also go to whether Plaintiffs have satisfied the first *Winter* factor. *See*,  
 16 *e.g.*, *LA Alliance for Human Rights v. Cnty. of Los Angeles*, 14 F.4th 947, 958 (9th Cir.  
 17 2021) (reversing preliminary injunction in part because “Plaintiffs have not made the  
 18 required ‘clear showing’ that any individual Plaintiff has standing to bring the . . . claim”);  
 19 *Yazzie v. Hobbs*, 977 F.3d 964, 966 (9th Cir. 2020) (“At this preliminary injunction stage,

20 \_\_\_\_\_  
 21 *v. Petrick*, 68 F.4th 475, 497 (9th Cir. 2023) (“[L]ike many legal questions, the meaning of  
 22 HFRA’s unambiguous provisions would not become clearer with at least some discovery  
 23 or a further hearing on the merits. There is no need for more deliberative investigation or  
 24 development of the record to resolve the plain meaning of HFRA.”) (cleaned up).  
 25 However, the Ninth Circuit has indicated that unsettled and debatable legal issues may also  
 26 qualify as serious questions. *See, e.g., hiQ Labs, Inc. v. LinkedIn Corp.*, 31 F.4th 1180,  
 27 1184, 1195 (9th Cir. 2022) (identifying unresolved issue of statutory interpretation over  
 28 the meaning of the term “without authorization” before concluding that “[a]t the very least,  
 . . . hiQ has raised a serious question as to this issue” and also noting that, during an earlier  
 stage in the case, “we focused on whether hiQ had raised serious questions on the merits  
 of the factual *and legal* issues presented to us”) (emphasis added); *City of Tenakee Springs*  
*v. Clough*, 915 F.2d 1308, 1311 (9th Cir. 1990) (reversing denial of preliminary injunction  
 in part because the movants’ “interpretation of the language of the contract [was] not  
 reasonable” and raised “at least a serious question as to its proper interpretation”);  
*Adultworld Bookstore v. City of Fresno*, 758 F.2d 1348, 1351-52 (9th Cir. 1985) (reversing  
 denial of preliminary injunction because “the question of the constitutionality of the Fresno  
 ordinance presents a fair ground for litigation” and “at least a serious litigation question”).

1 Yazzie must make a clear showing of each element of standing . . . .”) (cleaned up);  
 2 *Mitchell v. City of Cincinnati*, 2022 WL 4546852, \*4 (6th Cir. 2022) (“[W]hether plaintiffs  
 3 had standing . . . is a component of the likelihood of success on the merits.”).

4 **A. Appraisal Claims**

5 1. Threshold Issues

6 a. **Standing/Redressability**

7 “[S]tanding is an essential and unchanging part of the case-or-controversy  
 8 requirement of Article III.” *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992).  
 9 “[T]he irreducible constitutional minimum of standing contains three elements. First, the  
 10 plaintiff must have suffered an ‘injury in fact’—an invasion of a legally protected interest  
 11 which is (a) concrete and particularized and (b) actual or imminent, not conjectural or  
 12 hypothetical. Second, there must be a causal connection between the injury and the  
 13 conduct complained of—the injury has to be fairly traceable to the challenged action of the  
 14 defendant, and not the result of the independent action of some third party not before the  
 15 court. Third, it must be likely, as opposed to merely speculative, that the injury will be  
 16 redressed by a favorable decision.” *Id.* at 560-61 (cleaned up).

17 Focusing on the redressability element, Resolution Copper argues that Plaintiffs  
 18 lack Article III standing to pursue all of their claims because any asserted “injuries flowing  
 19 from conveyance of title . . . are not redressable through their claims here. . . . Nothing in  
 20 [SALECA] grants the Forest Service the power to refuse to make the exchange based on  
 21 court challenges to the FEIS, the appraisals, or the consultations. Even if Plaintiffs could  
 22 convince this Court that flaws in the FEIS, appraisals, or the consultations require  
 23 additional study or correction, Plaintiffs cannot show that the Forest Service ‘could be  
 24 influenced’ ultimately to do anything other than comply with its duty under the Act to  
 25 proceed with the land exchange.” (*AMRC*, Doc. 94 at 14.) Meanwhile, although it is not  
 26 clear whether the Federal Defendants also challenge *AMRC*’s Article III standing with  
 27 respect to the appraisal claims,<sup>3</sup> the Federal Defendants argue that, at a minimum, “*AMRC*

28 <sup>3</sup> Although the Federal Defendants raise redressability arguments that are similar to  
 the redressability arguments raised by Resolution Copper, their brief suggests they only

1 lacks prudential standing to challenge the appraisal at all, because its alleged injuries  
2 caused by the privatization of and eventual impacts to the federal lands fall outside the zone  
3 of interests protected by [SALECA’s] appraisal provisions.” (*AMRC*, Doc. 93 at 34.)

4 Even though, as explained in later portions of this order, Defendants’ redressability  
5 arguments present a closer call when applied to some of Plaintiffs’ other claims, they are  
6 unpersuasive in relation to *AMRC*’s appraisal-related claims. *Davis v. Fed. Election*  
7 *Comm’n*, 554 U.S. 724, 734 (2008) (“Standing is not dispensed in gross. Rather, a plaintiff  
8 must demonstrate standing for each claim he seeks to press and for each form of relief that  
9 is sought.”) (cleaned up). The starting point for the analysis is the Ninth Circuit’s decision  
10 in *Desert Citizens Against Pollution v. Bisson*, 231 F.3d 1172 (9th Cir. 2000). There, “three  
11 environmental organizations” sought to challenge a decision by the Bureau of Land  
12 Management (“BLM”) to enter into a land exchange, arguing that BLM relied “on an  
13 outdated appraisal that undervalued the federal lands.” *Id.* at 1174. The district court  
14 denied the plaintiffs’ request for a preliminary injunction on the ground that they lacked  
15 standing but the Ninth Circuit “reversed . . . [and] remanded for entry of a preliminary  
16 injunction setting aside this land exchange pending further proceedings in accordance with  
17 this opinion.” *Id.* at 1188.

18 As an initial matter, the Ninth Circuit rejected the district court’s determination that  
19 the plaintiffs’ appraisal-related arguments “only constituted an attack on the way federal  
20 money is spent, making [their] injury indistinguishable from that of other taxpayers and  
21 therefore insufficiently particularized to confer standing,” concluding that “the present  
22 challenge . . . is not merely a generalized allegation of federal revenue loss at taxpayers’  
23 expense. Rather, it is an effort by land users to ensure appropriate federal guardianship of  
24 the public lands which they frequent. If, by exchange, public lands are lost to those who  
25 use and enjoy the land, they are certainly entitled under the APA to file suit to assure that

26 \_\_\_\_\_  
27 view those redressability arguments as applying to Plaintiffs’ NEPA and NHPA claims.  
28 (*AMRC*, Doc. 93 at 13 [“Plaintiffs’ NEPA and NHPA claims also fail for want of standing  
because the injury that Plaintiffs trace to the land exchange is not redressable; the Forest  
Service has a non-discretionary obligation to transfer title.”].)

1 no exchange takes place unless the governing federal statutes and regulations are followed,  
2 including the requirement that the land exchanged is properly valued by the agency.” *Id.*  
3 at 1176-77. Turning to the issue of redressability, the defendants argued—similar to  
4 Defendants here—that a ruling in the plaintiffs’ favor would not redress their injuries  
5 because “even if [plaintiffs] succeeded on the merits and BLM relied on a new appraisal,”  
6 the land exchange would still eventually go forward and “the public lands would  
7 nevertheless be traded away.” *Id.* at 1178. The Ninth Circuit disagreed, holding that it  
8 would “place[] an unreasonable burden” on the plaintiffs to be required to conclusively  
9 establish “that no subsequent exchange would take place” following a reappraisal. *Id.*  
10 Instead, the court held, it was enough for redressability purposes that “the transfer based  
11 on the current appraisal would not have taken place and [plaintiffs] members could have  
12 continued to use and enjoy the selected federal lands.” *Id.* Finally, the Ninth Circuit also  
13 held that the plaintiffs fell within the zone of interests protected by the statute giving rise  
14 to their appraisal-related claims—there, the Federal Land Policy and Management Act  
15 (“FLPMA”)—and thus had prudential standing. *Id.* at 1179-80. Among other things, the  
16 court emphasized that FLPMA is intended to protect various environmental values, which  
17 “policy encompasses [plaintiffs’] interest in seeking to invalidate an allegedly unlawful  
18 transfer of federal land that will deprive its members of their aesthetic and recreational  
19 interest in the land,” and that FLPMA contains provisions that encourage judicial review  
20 of public land adjudication decisions. *Id.*

21 For the same reasons that the environmental organizations in *Desert Citizens* had  
22 Article III standing to challenge the appraisal underlying the land exchange they sought to  
23 enjoin, AMRC likely has Article III standing to challenge the Forest Service’s appraisal of  
24 the MCZ parcel. Defendants’ primary basis for seeking to distinguish *Desert Citizens* is  
25 that the land exchange in that case “was a discretionary administrative land exchange—not  
26 one ordered by Congress” and thus “it was possible that, if the plaintiff prevailed, the  
27 agency might change its mind and the federal land might not ‘be traded away,’” which is  
28 “not possible here” because “[e]ven if the . . . appraisals were found to need revision . . .

1 there is no possibility that the Forest Service may ‘decide’ not to make the land exchange.”  
2 (AMRC, Doc. 94 at 15, emphases omitted.) But this is a distinction without a difference.  
3 If, hypothetically, the Court were to agree with the merits of AMRC’s appraisal-related  
4 arguments and enjoin the land exchange pending a reappraisal, and if the Forest Service  
5 were to conclude following the reappraisal that the MCZ parcel is actually worth billions  
6 of dollars (as AMRC contends it should be valued), these developments might very well  
7 derail the land exchange. True, the Forest Service would still be required to *attempt* to  
8 convey title to Resolution Copper at the conclusion of the reappraisal process, but  
9 Resolution Copper might then decline to *accept* title because doing so would require it,  
10 pursuant to the equalization process set forth in § 539p(c)(5), to write a multi-billion dollar  
11 check to the federal government to make up the difference in value between the federal and  
12 non-federal parcels.<sup>4</sup> The bottom line is that correcting the alleged statutory violation (*i.e.*,  
13 the flawed appraisal) will create some possibility that the alleged injury-causing event (*i.e.*,  
14 the land exchange) will not occur. *Save Bull Trout v. Williams*, 51 F.4th 1101, 1106-07  
15 (9th Cir. 2022) (explaining that the “relaxed” requirement of redressability in a case  
16 involving an alleged procedural injury requires there to be “‘some possibility’ that the  
17 requested relief . . . will redress their alleged harms”).

18 Turning to prudential standing, SALECA itself, which provides the basis for  
19 AMRC’s appraisal-related claims, does not create a private right of action. *Concerned*  
20 *Citizens & Retired Miners Coalition v. U.S. Forest Serv.*, 279 F. Supp. 3d 898, 942-43 (D.  
21 Ariz. 2017) (rejecting tribal plaintiff’s claim “that the Forest Service violated § 3003 of the  
22 NDAA” in part because “the Tribe has not shown that this statute provides a cause of action  
23 for it”). Thus, AMRC must assert those claims via the Administrative Procedure Act  
24 (“APA”). “[A] person suing under the APA must satisfy not only Article III’s standing  
25 requirements, but an additional test: The interest he asserts must be arguably within the  
26

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27 <sup>4</sup> The FEIS acknowledges this point. (*San Carlos*, Doc. 105-9 at 137 [FEIS page 92:  
28 “[E]ven though directed by Congress, the land exchange remains a discretionary decision  
on the part of Resolution Copper, which may or may not choose to undertake the exchange  
after receipt of the appraised value.”].)

1 zone of interests to be protected or regulated by the statute that he says was violated.”  
2 *Havasupai Tribe v. Provencio*, 906 F.3d 1155, 1166 (9th Cir. 2018) (citation omitted).  
3 “The purpose of this prudential standing requirement is to exclude those plaintiffs whose  
4 suits are more likely to frustrate rather than to further statutory objectives. The test is not  
5 meant to be especially demanding. The benefit of any doubt goes to the plaintiff. Still, the  
6 ‘zone of interests’ standard forecloses suit when a plaintiff’s interests are so marginally  
7 related to or inconsistent with the purposes implicit in the statute that it cannot reasonably  
8 be assumed that Congress intended to permit the suit.” *Wild Fish Conservancy v. Jewell*,  
9 730 F.3d 791, 797 (9th Cir. 2013) (cleaned up). *See also Bennett v. Spear*, 520 U.S. 154,  
10 163 (1997) (characterizing the zone of interests in APA cases as “generous”).

11 On the one hand, although AMRC unsurprisingly views *Desert Citizens* as  
12 establishing the existence of prudential standing here, there are differences between the  
13 underlying statutes in that case and in this one. There, the plaintiffs relied on FLPMA,  
14 which includes provisions that expressly call for the protection of scenic and environmental  
15 interests and expressly encourage judicial review. *Desert Citizens*, 231 F.3d at 1179. The  
16 Ninth Circuit concluded those provisions created a zone of interests that was capacious  
17 enough to encompass the environmental organizations’ “interest in seeking to invalidate  
18 an allegedly unlawful transfer of federal land that will deprive its members of their aesthetic  
19 and recreational interest in the land.” *Id.* SALECA, in contrast, has one and only one  
20 stated purpose, which is to facilitate the land exchange.<sup>5</sup> Additionally, although the Court  
21 disagrees with Defendants’ contention (addressed in more detail in later portions of this  
22 order) that SALECA should be construed as evincing an intent to implicitly preclude any  
23 form of judicial review related to the land exchange, it does not explicitly encourage  
24 judicial review in the same manner as FLPMA.

25 On the other hand, one of the plaintiffs in *AMRC* is the Inter Tribal Association of  
26 Arizona, Inc. and SALECA has provisions that evince an intent to protect the interests of

27  
28 <sup>5</sup> 16 U.S.C. § 539p(a) (“The purpose of this section is to authorize, direct, facilitate,  
and expedite the exchange of land between Resolution Copper and the United States.”).

1 affected Indian tribes.<sup>6</sup> Although those provisions do not specifically state that affected  
2 Indian tribes have a protected interest in the appraisal and equalization portions of the  
3 statute, that was also the situation in *Desert Citizens*—the Ninth Circuit concluded the  
4 environmental organizations fell within the zone of interests created by FLPMA’s  
5 equalization provisions by looking to other portions of the statute that were not expressly  
6 related to the equalization process. Nor is *Desert Citizens* the only Ninth Circuit decision  
7 to conclude that environmental groups had prudential standing to challenge agency  
8 financial determinations. *Nat’l Wildlife Fed. v. Burford*, 871 F.2d 849, 852-55 (9th Cir.  
9 1989) (plaintiffs fell within the zone of interests of the Coal Leasing Act, and thus could  
10 challenge whether agency leases were made at fair market value, even though the  
11 challenged determination was purely economic). More broadly, the zone-of-interests test  
12 is “generous,” *Bennett*, 520 U.S. at 163, and “not . . . especially demanding.” *Wild Fish*  
13 *Conservancy*, 730 F.3d at 797. *See also Lexmark Int’l, Inc. v. Static Control Components,*  
14 *Inc.*, 572 U.S. 118, 130 (2014) (“[W]e have often conspicuously included the word  
15 ‘arguably’ in the test to indicate that the benefit of any doubt goes to the plaintiff . . . .”)  
16 (cleaned up). Given those principles, AMRC likely possesses prudential standing to pursue  
17 its appraisal-related claims, even if the case for prudential standing is not a slam dunk.

18 **b. Implicit Preclusion Of Judicial Review**

19 Defendants contend that SALECA should be construed as barring judicial review  
20 of the type of challenges Plaintiffs seek to advance here. Resolution Copper emphasizes  
21 that (1) the text of SALECA only identifies four enumerated conditions to the land  
22 exchange and “the issues that Plaintiffs seek to litigate here are not among them”; (2) “the  
23 unambiguous statutory obligation to transfer title within 60 days of FEIS publication is  
24 irreconcilable with Plaintiffs’ contention that conveyance of title must wait for judicial  
25 review of [their] various claims”; and (3) the only purpose of the FEIS, as explained in

26  
27 <sup>6</sup> *See, e.g.*, 16 U.S.C. § 539p(c)(3)(A)-(B) (requiring “government-to-government  
28 consultation with affected Indian tribes concerning issues of concern to the affected Indian  
tribes related to the land exchange” and corresponding efforts to “address the concerns of  
the affected Indian tribes”).

1 § 539(c)(9), is to guide future agency discretionary decisions related to the contemplated  
2 mining activity after the land exchange. (*AMRC*, Doc. 94 at 9-14.) Similarly, the Federal  
3 Defendants argue: “The practical effect of [the 60 day] statutory deadline is that title will  
4 necessarily be transferred before any judicial challenge to the FEIS could be resolved, or  
5 for that matter, before any Final ROD could issue. Congress would have understood this  
6 when it enacted the Land Exchange Act. . . . Aware that NEPA challenges are not resolved  
7 in a mere sixty days, Congress sought to ensure that the land exchange proceeded  
8 expeditiously. Read together, subsections (c)(9) and (c)(10) evince Congress’ intent to  
9 expedite the land exchange and to prevent an endless series of environmental reviews—  
10 and attendant judicial reviews—from frustrating that intent.” (*AMRC*, Doc. 93 at 19-20.)

11 These arguments lack merit. Congress could have expressly precluded judicial  
12 review of claims related to the land exchange but declined to do so. Defendants are thus  
13 left to argue that such intent should be inferred from various features of SALECA’s text.  
14 But such intent is not to be inferred lightly: “A strong presumption exists that the actions  
15 of federal agencies are reviewable in federal court.” *KOLA, Inc. v. United States*, 882 F.2d  
16 361, 363 (9th Cir. 1989). As the Supreme Court has explained:

17 We begin with the strong presumption that Congress intends judicial review  
18 of administrative action. From the beginning our cases have established that  
19 judicial review of a final agency action by an aggrieved person will not be  
20 cut off unless there is persuasive reason to believe that such was the purpose  
21 of Congress. . . . Congress ordinarily intends that there be judicial review,  
22 and . . . only upon a showing of clear and convincing evidence of a contrary  
23 legislative intent should the courts restrict access to judicial review. This  
24 standard has been invoked time and again when considering whether the  
Secretary has discharged the heavy burden of overcoming the strong  
presumption that Congress did not mean to prohibit all judicial review of his  
decision.

25 *Bowen v. Mich. Acad. of Family Physicians*, 476 U.S. 667, 670-72 (1986) (cleaned up).

26 The features of SALECA emphasized by Defendants are too ambiguous to  
27 overcome this strong presumption. Although the compressed 60-day transfer deadline has  
28 certainly complicated the task of providing judicial review of Plaintiffs’ challenges, it has

1 not rendered judicial review impossible. As the Tribe persuasively argues in its reply:  
2 “Congress certainly knew that NEPA and APA challenges are common and often lengthy.  
3 If it wanted to eliminate any such challenges, Congress could have excluded the Project  
4 from NEPA entirely. Congress did the opposite by requiring an EIS consistent with NEPA  
5 but subject to additional requirements. In this context, a preferable interpretation of the  
6 sixty-day timeframe is that it permits sufficient time for aggrieved parties to seek  
7 preliminary relief . . . .” (*San Carlos*, Doc. 119 at 10.)

8 **c. Final Agency Action**

9 The Federal Defendants contend that “[t]he Court lacks jurisdiction over Plaintiffs’  
10 claims because neither the FEIS nor the Draft ROD is a final agency action.” (*AMRC*, Doc.  
11 93 at 7, capitalization omitted.) Likewise, Resolution Copper argues that “[o]nly agency  
12 actions that are both discretionary and final are subject to APA review” and that “final  
13 agency action . . . is absent here.” (*AMRC*, Doc. 94 at 6, 48, emphasis omitted.)

14 Although Defendants’ “final agency action” arguments have more force when  
15 applied to some of Plaintiffs’ other claims, they are unpersuasive in relation to AMRC’s  
16 appraisal-related claims. As background, under the APA, “the person claiming a right to  
17 sue must identify some ‘agency action’ that affects him in the specified fashion” and “the  
18 ‘agency action’ in question must be ‘final agency action.’” *Lujan v. National Wildlife*  
19 *Federation*, 497 U.S. 871, 882 (1990). “The APA defines ‘agency action’ broadly to  
20 include the whole or a part of an agency rule, order, license, sanction, relief, or the  
21 equivalent or denial thereof, or failure to act. This definition is meant to cover  
22 comprehensively every manner in which an agency may exercise its power.” *Francisco*  
23 *Herring Ass’n v. Dep’t of the Interior*, 946 F.3d 564, 575-76 (9th Cir. 2019) (cleaned up).  
24 For purposes of AMRC’s appraisal-related claims, the challenged conduct is the Forest  
25 Service’s appraisal of the MCZ parcel. The Court has little trouble concluding that this  
26 appraisal qualifies as “agency action.”

27 To determine whether agency action is “final,” courts in the Ninth Circuit apply the  
28 two-part test from *Bennett v. Spear*, 520 U.S. 154 (1997): *first*, the action must “mark the

1 consummation of the agency’s decision-making process”; and *second*, the action must  
2 “determine rights or obligations or be one from which legal consequences will flow.”  
3 *Env’t Defense Ctr. v. Bureau of Ocean Energy Mgmt.*, 36 F.4th 850, 867-68 (9th Cir. 2022)  
4 (cleaned up). “The law surrounding the APA’s finality requirement is hardly crisp and our  
5 precedent lacks many self-implementing, bright-line rules, given the pragmatic and flexible  
6 nature of the inquiry as a whole.” *MediNatura, Inc. v. Food & Drug Administration*, 998  
7 F.3d 931, 938 (D.C. Cir. 2021) (cleaned up). “The core question is whether the agency has  
8 completed its decisionmaking process, and whether the result of that process is one that  
9 will directly affect the parties. The court focuses on the practical and legal effects of the  
10 agency action: the finality element must be interpreted in a pragmatic and flexible manner.”  
11 *Tohono O’odham Nation*, 138 F.4th at 1200 (cleaned up).

12 The finality analysis is straightforward as applied to AMRC’s appraisal-related  
13 claims. As for the first finality element, the appraisal process has now been completed—  
14 and, thus, there has been a “consummation of the agency’s decision-making process” with  
15 regard to the challenged appraisal decision. In this way, that decision differs from the  
16 discretionary permitting and land-use determinations discussed in the FEIS and DROD,  
17 which remain subject to change pending public comment and objection. As for the second  
18 finality element, the appraisal decision will certainly “determine rights or obligations,” as  
19 it will provide part of the basis under the equalization process set forth in § 539p(c)(5) for  
20 determining whether Resolution Copper has to write a check to the federal government—  
21 a check that, at least theoretically, could be for billions of dollars—to complete the land  
22 exchange.

23 Defendants’ arguments to the contrary are unavailing. Although Resolution Copper  
24 contends that SALECA “establishes its own remedy for any purported defect in the  
25 appraisal: a make-whole payment, not an injunction against conveyance” (*AMRC*, Doc. 94  
26 at 35-36), this ignores that the make-whole process only addresses what happens if the  
27 appraised value of the federal land exceeds the appraised value of the non-federal land. It  
28 doesn’t create a process for questioning the accuracy of the appraisal itself. Again, as to

1 that issue, final agency action has already occurred.

2 d. **No Agency Discretion**

3 Defendants also raise an array of arguments that hinge, in one way or another, on  
4 the concept of agency discretion. For example, the Federal Defendants argue that because  
5 “Congress required the Forest Service to carry out the land exchange,” it follows that “the  
6 Forest Service lacks discretion with respect to that statutory mandate” and thus “Plaintiffs  
7 cannot state a cognizable APA challenge to the land exchange.” (*AMRC*, Doc. 93 at 17.)  
8 The Federal Defendants also contend that because “NEPA does not apply in the absence  
9 of agency discretion” and non-discretionary actions are exempted “from NEPA’s definition  
10 of a ‘major federal action,’” “[t]he mandatory transfer of title is not a major federal action  
11 subject to NEPA.” (*Id.* at 22-23.) Likewise, Resolution Copper argues that “the [APA] is  
12 no help to Plaintiffs here, because what they seek to enjoin—conveyance of the federal  
13 land—is not an agency decision subject to any discretion.” (*AMRC*, Doc. 94 at 2.)

14 These “no agency discretion” arguments lack merit in relation to AMRC’s  
15 appraisal-related claims. Again, the challenged conduct here is the appraisal of the MCZ  
16 parcel, and SALECA expressly vests the Secretary of the Forest Service with discretion  
17 regarding that appraisal. *See* 16 U.S.C. § 539p(c)(4)(B)(ii) (“After the final appraised  
18 values of the Federal land and non-Federal land are determined and approved by the  
19 Secretary . . . .”). *See also Ctr. for Biological Diversity v. U.S. Forest Serv.*, 2025 WL  
20 947472, \*2 (D.D.C. 2025) (“To comply with [SALECA’s] equalization requirement,  
21 Congress mandated that the land parcels be independently appraised. The Forest Service  
22 contracted with Barry Weissborn to serve as lead appraiser. Within the Forest Service,  
23 Gerald Sanchez was designated to assess the appraiser’s work. . . . On January 20, 2023,  
24 the appraisal was completed, and on January 22, 2023, the appraisal was ‘provided’ to the  
25 Forest Service, meaning that Sanchez was granted authorization to view it. . . . On January  
26 25, 2023, Sanchez completed the technical review of the results of the appraisal and issued  
27 a report. Sanchez’s technical report assessed the completeness and accuracy of the  
28 appraisal to ensure that it used appropriate methods and techniques, and that its

1 conclusions, analyses, and opinions were reasonably supported with market data. Sanchez  
2 also prepared an appraisal summary. Both documents were prepared to *assist the Secretary*  
3 *when deciding whether to accept the appraisal . . .*”) (citations omitted) (emphasis added).

4 e. **Vacatur As A Remedy**

5 Defendants’ final threshold argument turns on the issue of the appropriate remedy  
6 in a NEPA action. According to Defendants, the usual remedy for a flaw in an  
7 environmental impact statement is not to order vacatur of the statement but simply to  
8 remand to the agency for additional analysis or consultation. (*AMRC*, Doc. 93 at 50  
9 [“Vacatur is generally not appropriate in NEPA cases . . . .”]; *AMRC*, Doc. 94 at 19  
10 [“Plaintiffs’ motions also rest on a mistaken premise about the appropriate remedy for a  
11 NEPA violation—even assuming they could establish one. Plaintiffs assert without  
12 analysis that this Court should vacate the FEIS and enjoin conveyance if it finds the FEIS  
13 somehow flawed. But . . . even if Plaintiffs were right that the FEIS is flawed, this Court  
14 at most might remand the FEIS without vacatur for further analysis or consultation.”].)  
15 According to Defendants, this principle is significant here because, absent vacatur, the land  
16 exchange must go forward on August 19, 2025 pursuant to SALECA’s statutory directive  
17 that the land exchange occur within 60 days of publication of the FEIS. (*Id.*)

18 This argument does not undermine AMRC’s likelihood of success in relation to the  
19 appraisal claims. As discussed, *Desert Citizens* holds that a district court may enjoin a land  
20 exchange based on appraisal-related errors. Indeed, in *Desert Citizens*, the Ninth Circuit  
21 remanded to the district court with directions to issue a preliminary injunction that would  
22 retroactively unwind a land exchange that had already occurred. *Desert Citizens*, 231 F.3d  
23 at 1188 (“The district court’s dismissal and its denial of a preliminary injunction are  
24 reversed, and the case is remanded for entry of a preliminary injunction setting aside this  
25 land exchange pending further proceedings in accordance with this opinion.”). Even  
26 though, as Defendants emphasize, the land exchange in *Desert Citizens* was not  
27 congressionally mandated, the Court still construes *Desert Citizens* (rather than the NEPA  
28 decisions cited by Defendants) as supplying the relevant authority in evaluating whether

1 an available remedy exists in the appraisal context that would redress AMRC’s asserted  
2 injuries.

3 2. Merits

4 Even though AMRC will likely to be able to survive the various jurisdictional and  
5 threshold issues raised by Defendants in relation to its appraisal-related challenges, that is  
6 only half the battle—AMRC must also establish that it is likely to prevail on those  
7 challenges (or at least demonstrate the existence of serious questions going to the merits).

8 AMRC has failed to make that showing. As background, the challenged appraisal  
9 concerns the MCZ parcel, which comprises “1,655.53 acres of vacant land east of Superior  
10 and just south of U.S. 60. . . . Much of the property is within the site of the proposed  
11 Resolution Copper underground copper mine.” (*AMRC*, Doc. 93-3 at 7.) In the appraisal  
12 report, the Forest Service acknowledged that “[i]t is understood that a significant porphyry  
13 copper deposit exists beneath the Subject Property.” (*Id.* at 9.) Nevertheless, the Forest  
14 Service declined to consider the value of that copper when appraising the value of the MCZ  
15 parcel because that copper is “subject . . . to 148 unpatented mining claims held by  
16 Resolution Copper.” (*Id.*) The Forest Service explained: “An unpatented mining claim is  
17 a conditional, possessory, interest in real property ownership of a mineral estate in  
18 accordance with the Mining Law . . . . Since the Subject Property is encumbered by mining  
19 claims held by a party other than the United States; said mining claims confer all rights to  
20 locatable minerals to that party in accordance with the Mining Law and are not part of the  
21 estate owned by the United States.” (*Id.* at 10, citations omitted.) The Forest Service  
22 concluded: “The Subject Property was regarded as a split estate since the unpatented  
23 mining claims confer all rights to locatable minerals. . . . Therefore, the total purchase  
24 price is allocated to the surface interest, with no adjustments applied.” (*Id.* at 12.)

25 AMRC raises an array of challenges to this appraisal, all of which hinge, one way  
26 or another, on the appraiser’s failure to include the value of the copper underlying the MCZ  
27 parcel in the value of the parcel. (*See, e.g., AMRC*, Doc. 87 at 8 [“[T]he appraisal for the  
28 MCZ parcel arbitrarily failed to include *any* value for the tens of billions of dollars worth

1 of copper, valuing the entire 1,655-acre parcel at less than \$2 million.”]; *id.* [“[T]he MCZ  
2 appraisal is based on the erroneous assumption that the value of the 35 billion pounds of  
3 copper on these federal lands is zero, simply because Resolution has filed mining claims  
4 on these lands.”]; *id.* at 12 [“There is simply no rational, economic comparison between  
5 the types of nondescript surface lands that the appraiser considered as comparable sales  
6 and the invaluable MCZ parcel, which sits atop nearly 90 percent of the world’s third-  
7 largest known copper deposit (35 of the estimated 40 billion pounds).”].)

8 In the Court’s view, the appraiser’s approach was correct and AMRC’s criticisms  
9 all flow from a misunderstanding of how unpatented mining claims work. In *United States*  
10 *v. Shumway*, 199 F.3d 1093 (9th Cir. 1999), the Ninth Circuit provided an overview of this  
11 “relatively arcane area of law.” *Id.* at 1097. The court explained that under “the Mining  
12 Law of 1872”—which, despite being the subject of “much contemporary hostility,”  
13 “remains the law”—“the finder of valuable minerals on government land is entitled to  
14 exclusive possession of the land for purposes of mining and to all the minerals he extracts.”  
15 *Id.* at 1098-99. The court further explained that although “[t]he phrase ‘mining claim’ . . .  
16 probably connotes to most laymen an unsupported assertion or demand from which no  
17 legal rights can be inferred,” “that is emphatically not so” under the Mining Law of 1872  
18 because “the word ‘claim’ in connection with the phrase ‘mining claim’ represents a  
19 federally recognized right in real property.” *Id.* at 1099-1100. The court continued:

20 The Supreme Court has established that a mining “claim” is not a claim in  
21 the ordinary sense of the word—a mere assertion of a right—but rather is a  
22 property interest, which is itself real property in every sense, and not merely  
23 an assertion of a right to property. . . . In *United States v. North American*  
24 *Transportation & Trading Co.*, the Army had been sent to Nome to bring  
25 order during its gold rush, and the president established a federal reservation  
26 for the Army base. The Court, in an opinion by Justice Brandeis, held that a  
27 company holding a mining claim at the site was entitled to compensation for  
28 the taking, with interest from the date of the reservation. This case  
establishes that the government cannot reserve its own land from an  
unpatented mining claim without paying the owner the value of the claim,  
because an unpatented mining claim is property.

1 *Id.* at 1100 (citations omitted).

2       Recently, in *Ctr. for Biological Diversity v. U.S. Fish and Wildlife Serv.*, 33 F.4th  
3 1202 (9th Cir. 2022), the Ninth Circuit further addressed these concepts. There, the court  
4 explained that “[t]he Mining Law of 1872 . . . gives to United States citizens free of charge,  
5 except for small filing and other fees, mining rights upon discovery of ‘valuable minerals’  
6 on federal land.” *Id.* at 1208. “[T]he Mining Law remains in effect for much federal land  
7 and for many minerals, including copper. Within the scope of its operation, the Mining  
8 Law continues to be a source of wealth—sometimes great wealth—for those who discover  
9 valuable minerals on federal land.” *Id.* at 1209. “A miner who finds valuable minerals  
10 may ‘locate’ (or ‘stake’) a claim and thereby obtain an ‘unpatented mining claim.’ A valid  
11 unpatented claim gives the miner the right to ‘occupy’ the claim and to mine the minerals  
12 free of charge.” *Id.* (citations omitted).

13       In light of these principles, it is difficult for the Court to find any fault in the Forest  
14 Service’s appraisal. Resolution Copper already effectively owns the exclusive right to  
15 mine the copper underlying the MCZ parcel. *See, e.g., Ickes v. Virginia-Colorado*  
16 *Development Corp.*, 295 U.S. 639, 644 (1935) (explaining that an unpatented mining claim  
17 “is property in the fullest sense of that term” and “is alienable, inheritable, and taxable”);  
18 *Ctr. for Biological Diversity*, 33 F.4th at 1209 (“A valid unpatented claim gives the miner  
19 the right to ‘occupy’ the claim and to mine the minerals free of charge.”); *Shumway*, 199  
20 F.3d at 1100 (“[T]he government cannot reserve its own land from an unpatented mining  
21 claim without paying the owner the value of the claim, because an unpatented mining claim  
22 is property.”). *See also Ctr. for Biological Diversity v. U.S. Dept. of Interior*, 623 F.3d  
23 633, 643 (9th Cir. 2010) (“Asarco has a right to engage in mining on the selected lands  
24 under the Mining Law even if the exchange does not proceed, based on its 747 unpatented  
25 mining and mill site claims.”); *Kunkes v. United States*, 32 Fed. Cl. 249, 252 (1994), *aff’d*,  
26 78 F.3d 1549 (Fed. Cir. 1996) (“Although legal title to the land remains in the United  
27 States, the claimant enjoys a valid, equitable title in the claim, possessing all of the  
28 incidents of real property.”). It would be odd if the value of that copper were nevertheless

1 included in the value of the federal government’s interest in the parcel. Following that  
2 approach would force Resolution Copper, as part of the land exchange, to pay the federal  
3 government for the copper it effectively already owns the exclusive right to mine. The  
4 Court thus agrees with Resolution Copper that “AMRC’s real complaint is not with the  
5 MCZ appraisal but with the General Mining Law of 1872” and that adopting AMRC’s  
6 argument “that Resolution should pay the United States for rights it already owns in the  
7 MCZ would nullify the 1872 Law and 150 years of Supreme Court precedent, as well as  
8 take Resolution’s property.” (*AMRC*, Doc. 94 at 37-38.) As the Federal Defendants  
9 correctly note in their response: “[E]ven if Congress had never enacted [SALECA],  
10 Resolution Copper would retain the exclusive rights to exploit the locatable minerals  
11 (assuming it paid the annual claim maintenance fee), and those rights would remain an  
12 encumbrance on the land owned by the United States.” (*AMRC*, Doc. 93 at 39.)

13 In its motion papers, AMRC never directly addresses the absurd consequences that  
14 would flow from adopting its position. Nor do AMRC’s more granular arguments change  
15 the analysis. For example, although the federal government may still technically “own[]  
16 the mineral estate” underlying the MCZ parcel (*AMRC*, Doc. 87 at 8), that interest does not  
17 include the right to *mine* the minerals, which belongs to Resolution Copper. *Ctr. for*  
18 *Biological Diversity*, 33 F.4th at 1209. AMRC also identifies various regulations and  
19 standards that call for appraisers to include the value of “minerals” in any appraisal (*AMRC*,  
20 Doc. 87 at 9-10; *AMRC*, Doc. 97 at 7-11), but those general statements do not explain how  
21 to perform the valuation when, as here, the minerals are subject to unpatented mining  
22 claims.<sup>7</sup> Finally, AMRC’s “highest and best use” and “must be appraised as private lands”  
23 arguments (*AMRC*, Doc. 87 at 11-13) rely on the false premise that, in those scenarios,  
24 Resolution Copper’s exclusive right to mine the minerals would somehow cease to exist.<sup>8</sup>

25 \_\_\_\_\_  
26 <sup>7</sup> Indeed, the appraisal guidelines appear to recognize that valuing “mineral  
27 properties” can be complicated by the existence of mining claims. (*AMRC*, Doc. 87-17 at  
28 57 [“Appraisers valuing mineral properties impacted by the 1872 Mining Law are advised  
to coordinate with client agency staff to clarify the approaches to valuing those interests.”].)

<sup>8</sup> AMRC also raises, in its reply brief, what the Court perceives to be a new argument  
not properly raised in AMRC’s motion—that the appraiser should have disregarded  
Resolution Copper’s unpatented mining claims to the copper underlying the MCZ parcel

1 AMRC also places heavy emphasis on certain statements that were made during the  
2 legislative process surrounding SALECA's enactment. (AMRC, Doc. 87 at 9-10  
3 [discussing congressional testimony by a Forest Service representative, a report by the  
4 Congressional Budget Office, and a House report].) As an initial matter, although those  
5 statements reflect a belief that the value of "mineral deposits" or "ore deposits" would be  
6 included in the appraised value of the federal land, that belief is not necessarily inconsistent  
7 with the approach the Forest Service took in this case. Although AMRC confines its  
8 objections to the appraisal related to the MCZ parcel, the Forest Service also completed an  
9 appraisal of a different parcel of federal land to be included in the land exchange, called  
10 the Mineral Withdrawal Area (or "MWA") parcel. (AMRC, Doc. 87-12.) The MWA parcel  
11 also sits atop large and valuable copper deposits, but those deposits—unlike the deposits  
12 underlying the MCZ parcel—are not the subject of unpatented mining claims held by

13  
14 because Resolution Copper has never "actually determine[d] whether the mine is  
15 financially viable." (AMRC, Doc. 97 at 7-8.) First, "[t]he district court need not consider  
16 arguments raised for the first time in a reply brief." *Zamani v. Carnes*, 491 F.3d 990, 997  
17 (9th Cir. 2007). Second, at any rate, it was logical—and certainly not arbitrary and  
18 capricious—for the appraiser to operate from the premise that the copper deposits  
19 underlying the MCZ parcel are valuable enough to validate Resolution Copper's mining  
20 claims. Indeed, AMRC itself asserts in its motion that the MCZ parcel includes "tens of  
21 billions of dollars worth of copper," is "invaluable," and "sits atop nearly 90 percent of  
22 the world's third-largest known copper deposit (35 of the estimated 40 billion pounds)." (AMRC, Doc. 87 at 8, 12.) Furthermore, SALECA can be reasonably interpreted as  
23 reflecting a congressional determination that Resolution Copper's mining claims are valid  
24 and that the contemplated mine will be financially viable. 16 U.S.C. § 539p(i)(C)  
25 ("Nothing in this section shall interfere with, limit, or otherwise impair, the unpatented  
26 mining claims . . . currently held by Resolution Copper on the Federal land, nor in any way  
27 change, diminish, qualify, or otherwise impact Resolution Copper's rights and ability to  
28 conduct activities on the Federal land under such unpatented mining claims and the general  
mining laws of the United States."). *Center for Biological Diversity* is not to the contrary,  
as the disputed issue in that case was not whether the mining company had valid mining  
claims to the land containing the copper deposits but rather whether the company's mining  
claims to the adjacent land (where the mining waste would be dumped) were valid. *Ctr.*  
*for Biological Diversity*, 33 F.4th at 1212 ("Rosemont proposes to dump 1.9 billion tons of  
waste rock onto 2,447 acres of nearby National Forest land on which it has mining claims,  
to an average depth of 700 feet. Undisputed evidence in the administrative record shows  
that no valuable minerals have been found on the mining claims that Rosemont proposes  
to occupy with its waste rock."); *id.* at 1217 ("Rosemont owns valid mining rights on the  
National Forest land where it would dig its proposed pit mine. Mining rights on that land  
were given by the federal government under the Mining Law, essentially free of charge.  
Rosemont has now asked the Forest Service to authorize it to permanently occupy with its  
waste rock 2,447 acres of additional National Forest land on which it does not have valid  
mining rights, also essentially free of charge.").

1 Resolution Copper. As a result, the Forest Service included the value of those copper  
2 deposits when appraising the value of the MWA parcel. (*Id.* at 12 [“The property rights  
3 for the subject includes the surface and sub-surface mineral interests.”].) In other words,  
4 the Forest Service *did* include the value of at least some of the relevant mineral deposits in  
5 its appraisals, which is broadly consistent with the expectations reflected in the cited  
6 legislative history materials.<sup>9</sup>

7 More important, the isolated statements that AMRC has been able to pull from the  
8 extensive legislative record surrounding SALECA’s enactment shed little light on how to  
9 construe the statutory text that Congress ultimately chose to adopt. *Epic Sys. Corp. v.*  
10 *Lewis*, 584 U.S. 497, 523 (2018) (“[L]egislative history is not the law. It is the business of  
11 Congress to sum up its own debates in its legislation, and once it enacts a statute we do not  
12 inquire what the legislature meant; we ask only what the statute means.”) (cleaned up). To  
13 that point, SALECA contains a clear textual indication that Congress was aware of  
14 Resolution Copper’s unpatented mining claims and intended to preserve them: “Nothing  
15 in this section shall interfere with, limit, or otherwise impair, the unpatented mining claims  
16 . . . currently held by Resolution Copper on the Federal land, nor in any way change,  
17 diminish, qualify, or otherwise impact Resolution Copper’s rights and ability to conduct  
18 activities on the Federal land under such unpatented mining claims and the general mining  
19 laws of the United States.” 16 U.S.C. § 539p(i)(C).

20 One final point bears emphasizing. Because SALECA does not create a private  
21 right of action, AMRC must assert its appraisal-related challenges via the APA. Under the  
22 APA, final agency action can only be set aside if it is “arbitrary, capricious, an abuse of  
23 discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). “This standard  
24 of review is highly deferential, presuming the agency action to be valid and affirming the  
25 agency action if a reasonable basis exists for its decision.” *Northwest Ecosystem Alliance*

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26 <sup>9</sup> To the extent AMRC argues the cited legislative history materials reflect a belief  
27 “that the appraisals of both the MWA and MCZ parcels must include the value of the  
28 minerals” (*AMRC*, Doc. 87 at 9, emphasis omitted), the Court disagrees—the cited  
passages are ambiguous as to which minerals and ore would be included in the valuation  
and do not specifically state that the minerals underlying both parcels would be included.

1 *v. U.S. Fish & Wildlife Serv.*, 475 F.3d 1136, 1140 (9th Cir. 2007). “This rule ensures that  
2 the reviewing court affords sufficient deference to the agency’s action. The APA gives an  
3 agency substantial discretion to rely on the reasonable opinions of its own qualified experts  
4 even if, as an original matter, a court might find contrary views more persuasive.” *San*  
5 *Luis & Delta-Mendota Water Authority v. Locke*, 776 F.3d 971, 992 (9th Cir. 2014)  
6 (cleaned up). “A court simply ensures that the agency has acted within a zone of  
7 reasonableness and, in particular, has reasonably considered the relevant issues and  
8 reasonably explained the decision.” *FCC v. Prometheus Radio Project*, 592 U.S. 414, 423  
9 (2021).

10 These principles are relevant here because AMRC has failed to identify any  
11 appraisal standard that specifically requires the value of minerals that are the subject of  
12 unpatented mining claims to be included when calculating the federal government’s  
13 interest in the parcel of land that contains those minerals; failed to identify any prior  
14 appraisal adopting that approach; and failed to identify any judicial decision suggesting  
15 that approach is permissible (let alone required). Given this backdrop, it is difficult to see  
16 how the challenged appraisal decision—which followed the recommendations of an expert  
17 whose credentials AMRC has not challenged—could be deemed not just wrong, but so  
18 wrong as to qualify as arbitrary and capricious. *Cf. Greer Coalition, Inc. v. U.S. Forest*  
19 *Serv.*, 2011 WL 671750, \*9-16 (D. Ariz. 2011) (rejecting various objections to appraisal,  
20 noting that “courts should not overturn agency decisions when the agency has considered  
21 relevant factors and reached a rational conclusion,” and emphasizing that “[t]his is  
22 particularly true where, as in the case of these appraisals, the agency chooses to rely on the  
23 opinions of qualified experts”). Put another way, even if the appraisal decision was  
24 wrong—and the Court is skeptical it was—it at least fell within the “zone of  
25 reasonableness,” *Prometheus Radio Project*, 592 U.S. at 423, given the absence of contrary  
26 authority and the presence of a reasoned explanation for the decision.

### 27 3. Conclusion As To Appraisal Claims

28 Although AMRC will likely be able to overcome the jurisdictional and other

1 threshold challenges that Defendants have raised to its appraisal-related claims, AMRC has  
2 not shown a likelihood of success on the merits of those claims or even serious questions  
3 going to the merits of those claims.

4 **B. NEPA Claims**

5 1. Threshold Issues

6 Defendants' jurisdictional and other threshold challenges to Plaintiffs' NEPA  
7 claims raise unsettled, complicated questions. To understand why, it is necessary to take a  
8 step back and consider how SALECA's statutorily-mandated process for performing an  
9 environmental impact analysis differs from the typical process for performing such an  
10 analysis.

11 Ordinarily, "[t]he NEPA review process concludes in one of two ways: (1) the  
12 agency determines through an EA [environmental assessment] that a proposed action will  
13 not have a significant impact on the environment and issues a FONSI [finding of no  
14 significant impact], or (2) the agency determines that the action will have a significant  
15 impact and issues an EIS *and* record of decision." *Env'tl Defense Ctr.*, 36 F.4th at 868  
16 (emphasis added). As the italicized text indicates, the issuance of the FEIS is typically not  
17 the final step in the agency's analysis in a case where a FEIS is required—instead, the final  
18 step is the issuance of the final record of decision ("ROD"). *See, e.g., Seven County*  
19 *Infrastructure Coalition*, 145 S. Ct. at 1511 ("Because an EIS is only one input into an  
20 agency's decision and does not itself require any particular substantive outcome, the  
21 adequacy of an EIS is relevant only to the question of whether an agency's final decision  
22 . . . was reasonably explained."); *Oregon Natural Resources Council v. Harrell*, 52 F.3d  
23 1499, 1508 (9th Cir. 1995) ("A record of decision comes at the end of the pre-decision,  
24 environmental review process and is intended to make public the agency's decision, to  
25 identify the alternatives considered and which are environmentally preferable, to state  
26 whether all practicable means to avoid or minimize environmental harm have been  
27 adopted, and to summarize the monitoring and enforcement program that has been  
28 adopted."). For these reasons, the usual rule is that "[o]nce an EIS's analysis has been

1 solidified in a ROD, an agency has taken final agency action.” *Oregon Natural Desert*  
2 *Ass’n v. Bureau of Land Mgmt.*, 625 F.3d 1092, 1118 (9th Cir. 2010).

3 The environmental review process mandated by SALECA differs in some ways. As  
4 noted, SALECA provides that “[p]rior to conveying Federal land under this section, the  
5 Secretary shall prepare a single environmental impact statement under [NEPA], which  
6 shall be used as the basis for all decisions under Federal law related to the proposed mine  
7 and the Resolution mine plan of operations and any related major Federal actions  
8 significantly affecting the quality of the human environment, including the granting of any  
9 permits, rights-of-way, or approvals for the construction of associated power, water,  
10 transportation, processing, tailings, waste disposal, or other ancillary facilities.” 16 U.S.C.  
11 § 539p(c)(9)(B). In isolation, this provision is consistent with the typical NEPA review  
12 process in that it contemplates the issuance of a FEIS followed by the subsequent issuance  
13 of a ROD setting forth the agency’s final decisions regarding various discretionary matters.  
14 However, SALECA also contains the following additional provision: “Not later than 60  
15 days after the date of publication of the [FEIS], the Secretary shall convey all right, title,  
16 and interest of the United States in and to the Federal land to Resolution Copper.” *Id.*  
17 § 539p(c)(10). In other words, SALECA tethers a non-discretionary act—the conveyance  
18 of title necessary to complete the land exchange—to the issuance of the FEIS. SALECA  
19 also effectively requires this non-discretionary act to occur before the issuance of the ROD,  
20 because “[t]he Final ROD will not be signed until after the conclusion of the objection  
21 process” and “this process is unlikely to conclude before the end of 2025.” (*San Carlos*,  
22 Doc. 114 at 4.)

23 These unique features of SALECA—the parties have not identified any similar  
24 statute—make it particularly challenging to apply the relevant Ninth Circuit and Supreme  
25 Court authorities addressing the concepts of redressability, final agency action, and  
26 discretionary agency action in NEPA cases. From the Court’s perspective, attempting to  
27 applying those precedents has sometimes been akin to attempting to pound a round peg  
28 into a square hole—the principles and standards set forth in other APA and NEPA cases

1 don't map neatly onto how SALECA operates.

2 The unique features of SALECA also create other complications. One purpose of  
3 the environmental review process under NEPA is to require an agency to provide a  
4 reasoned comparison of the projected benefits and environmental consequences of a  
5 proposed course of action. *Baltimore Gas & Elec. Co. v. Natural Resources Defense*  
6 *Council*, 462 U.S. 87, 97-98 (1983) (“NEPA has twin aims. First, it places upon an agency  
7 the obligation to consider every significant aspect of the environmental impact of a  
8 proposed action. Second, it ensures that the agency will inform the public that it has indeed  
9 considered environmental concerns in its decisionmaking process. Congress in enacting  
10 NEPA, however, did not require agencies to elevate environmental concerns over other  
11 appropriate considerations. Rather, it required only that the agency take a ‘hard look’ at  
12 the environmental consequences before taking a major action. The role of the courts is  
13 simply to ensure that the agency has adequately considered and disclosed the  
14 environmental impact of its actions and that its decision is not arbitrary or capricious.”)  
15 (cleaned up). Thus, “[i]n addition to the proposed agency action, every EIS must rigorously  
16 explore and objectively evaluate all reasonable alternatives to that action. . . . A no action  
17 alternative in an EIS allows policymakers and the public to compare the environmental  
18 consequences of the status quo to the consequences of the proposed action.” *Ctr. for*  
19 *Biological Diversity*, 623 F.3d at 642 (cleaned up).

20 Nevertheless, SALECA contemplates that the land exchange will occur within 60  
21 days of, *and regardless of the analysis set forth in*, the FEIS. This has the feel of a “ready,  
22 fire, aim” approach because it suggests, as Resolution Copper’s counsel acknowledged  
23 during oral argument, that the land exchange must go forward even if the Forest Service  
24 determines it will result in catastrophic environmental consequences. Again, this is not  
25 how the environmental review process usually works under NEPA, which complicates the  
26 task of applying existing NEPA precedents.

27 ...

28 ...

1 a. **Standing/Redressability**

2 The Federal Defendants contend that Plaintiffs cannot establish redressability in  
3 relation to their NEPA claims “because there is no chance that additional environmental  
4 review could prompt the Forest Service to decide not to complete the land exchange to  
5 which Plaintiffs trace their injury. The decision to transfer Oak Flat to Resolution Copper  
6 was made by Congress, and the Forest Service does not have discretion to take another  
7 course.” (AMRC, Doc. 93 at 14.) Similarly, Resolution Copper argues: “Even if Plaintiffs  
8 could convince this Court that flaws in the FEIS . . . require additional study or correction,  
9 Plaintiffs cannot show that the Forest Service ‘could be influenced’ ultimately to do  
10 anything other than comply with its duty under the Act to proceed with the land exchange.”  
11 (AMRC, Doc. 94 at 14.)

12 Although this argument has some force, the Court perceives two related weaknesses  
13 in it. First, it seems to presuppose that the Court lacks authority to order vacatur of the  
14 FEIS as a remedy even if the FEIS is deemed deficient under NEPA. The question of  
15 vacatur is addressed in later portions of this order, but assuming for now that vacatur is an  
16 option, that remedy would, at least temporarily, prevent the land exchange from occurring  
17 (because the exchange can only occur, per § 539p(c)(1), “after” the date of publication of  
18 the FEIS).

19 Second, Defendants’ argument also overstates the sort of relief that is required to  
20 establish redressability for a procedural injury. In *W. Watersheds Project v. Grimm*, 921  
21 F.3d 1141 (9th Cir. 2019), environmental organizations brought an “action to enjoin the  
22 federal government’s participation in the killing of gray wolves in Idaho pending additional  
23 analysis under” NEPA. *Id.* at 1143. The district court concluded the plaintiffs lacked  
24 standing because the challenged activity would likely continue to occur regardless of the  
25 injunction, and thus the plaintiffs could not establish redressability, but the Ninth Circuit  
26 reversed, explaining that “[i]f Wildlife Services were to cease its activities—even  
27 temporarily—it is possible that fewer wolves would be killed, particularly in the short  
28 term.” *Id.* at 1148.

1 Similarly, in *Center for Biological Diversity v. Mattis*, 868 F.3d 803 (9th Cir. 2017),  
2 after the Department of Defense (“DOD”) approved the location, construction, and  
3 specifications for a military base in Okinawa, Japan, an environmental organization sought  
4 “to protect a local animal population and cultural property from the base’s alleged adverse  
5 effects by bringing claims for declaratory and injunctive relief based on the Government’s  
6 alleged violations of [NHPA].” *Id.* at 808. The DOD’s decision to construct the military  
7 base arose from a bilateral executive agreement between the United States and Japan, *id.*  
8 at 811, and the Ninth Circuit noted that the plaintiff lacked standing to challenge the  
9 executive agreement itself or the DOD’s decision to construct the base, *id.* at 819.  
10 Nevertheless, even though the construction of the base would eventually go forward, the  
11 Ninth Circuit concluded the plaintiff had standing to seek an injunction to prevent “any  
12 activities in furtherance of the [base construction], including granting permits . . . until [the  
13 DOD] complies with section 402 of the NHPA.” *Id.* at 826 (cleaned up).

14 Here, too, if the land exchange were enjoined “temporarily” and “in the short term,”  
15 *W. Watersheds Project*, 921 F.3d at 1148, that would redress at least some of Plaintiffs’  
16 injuries. *See also Ctr. for Biological Diversity v. Export-Import Bank of the U.S.*, 894 F.3d  
17 1005, 1013 (9th Cir. 2018) (explaining that, in a prior case, the Ninth Circuit applied “the  
18 relaxed standard for procedural-injury” to hold “that a change in agency decisionmaking  
19 (from granting the permits to denying the permits, *even temporarily*)” was sufficient to  
20 establish redressability) (emphasis added). As Plaintiffs’ counsel explained during oral  
21 argument, every day that Oak Flat remains intact is another day that members of the Tribe  
22 can use the land in its current, unspoiled form for religious purposes and ceremonies. Thus,  
23 even a temporary delay may, for example, allow another Sunrise Ceremony to take place.  
24 *See generally Apache Stronghold*, 145 S. Ct. at 1480-82 (“[T]ribal members have  
25 worshipped at Oak Flat for centuries, conducting there a number of religious ceremonies  
26 that cannot take place anywhere else. One example, the ‘Sunrise Ceremony,’ is a multiday  
27 coming-of-age ceremony for young women. . . . Tribal members believe the destruction  
28 of Oak Flat will close off a portal to the Creator forever and will completely devastate the

1 Western Apaches’ spiritual lifeblood. For the women who came of age at Oak Flat in  
2 particular, that means their ties to *Chi’chil Bildagoteel*, and to all of the girls past, present,  
3 who have had their Sunrise Ceremony there, will be severed.”) (Gorsuch, J., dissenting  
4 from the denial of certiorari) (cleaned up). This will make all the difference in the world  
5 to the young women who are allowed to participate in that ceremony, even if it does not  
6 ensure that future ceremonies will take place that would benefit additional young women.

7 *Salmon Spawning & Recovery Alliance v. Gutierrez*, 545 F.3d 1220 (9th Cir. 2008),  
8 which Defendants view as conclusively foreclosing any claim of redressability, is  
9 distinguishable. There, three environmental plaintiffs challenged the validity of a 1999  
10 biological opinion (“BiOp”) that the National Marine Fisheries Service (“NMFS”)  
11 prepared to advise the United States on the implementation of a treaty with Canada and  
12 “evaluate the effects of . . . the Treaty on the recovery and survival of listed salmon.” *Id.*  
13 at 1222-23. The BiOp concluded that “Canadian take under the Treaty was not likely to  
14 jeopardize the continued existence of threatened or endangered salmon stocks.” *Id.* at  
15 1224. The Ninth Circuit rejected the plaintiffs’ challenge to the validity of the BiOp for  
16 lack of standing, explaining that even though the “defective BiOp could theoretically be  
17 set aside,” the court lacked the power to require the State Department to withdraw from the  
18 treaty—the ultimate basis for the plaintiffs’ injury—and thus that injury was beyond  
19 redress. *Id.* at 1226.

20 Although *Salmon Spawning* has some parallels to this case, an important difference  
21 is that the Court may have the power (subject to the additional vacatur discussion *infra*) to  
22 order the Forest Service to vacate the FEIS. That remedy would at least temporarily  
23 preclude the land exchange from going forward, because SALECA identifies the issuance  
24 of the FEIS as a condition precedent to the land exchange. In contrast, there was no step  
25 the court in *Salmon Spawning* could take that would undo, even temporarily, the treaty  
26 between the United States and Canada.<sup>10</sup> *See also Ctr. for Biological Diversity*, 868 F.3d

27 <sup>10</sup> Additionally, the plaintiffs in *Salmon Spawning* asserted a separate claim for relief  
28 based on the theory that “the State Department and NMFS were obligated by [the  
Endangered Species Act] and its implementing regulations to reinstate consultation on the  
1999 BiOp” following the discovery of new methods and criteria for evaluating the impact

1 at 818-19 (distinguishing *Salmon Spawning*).

2 For these reasons, Plaintiffs have established a likelihood (albeit not a certainty) that  
3 they will be able to satisfy the “relaxed” requirement of redressability in a case involving  
4 an alleged procedural injury, as “there is ‘some possibility’ that the requested relief . . . will  
5 redress their alleged harms.” *Save Bull Trout*, 51 F.4th at 1106-07. *See also Salmon*  
6 *Spawning*, 545 F.3d at 1226 (“Plaintiffs alleging procedural injury can often establish  
7 redressibility [sic] with little difficulty . . .”).

8 **b. Implicit Preclusion Of Judicial Review**

9 Defendants’ “implicit preclusion” argument fares no better in relation to Plaintiffs’  
10 NEPA claims than it did in relation to AMRC’s appraisal claims. SALECA does not  
11 expressly preclude judicial review and a strong presumption exists in favor of judicial  
12 review. *Bowen*, 476 U.S. at 670-72; *KOLA, Inc*, 882 F.2d at 363. The statutory features  
13 that Defendants emphasize are too ambiguous to overcome this presumption. Indeed,  
14 SALECA provides that “[e]xcept as otherwise provided in this section, the Secretary shall  
15 carry out the land exchange in accordance with the requirements of the National  
16 Environmental Policy Act of 1969.” 16 U.S.C. § 539p(A)(9). The natural reading of this  
17 provision is that judicial review under NEPA (via the APA) is available. True, the initial  
18 prefatory phrase “[e]xcept as otherwise provided in this section” suggests there may be  
19 some deviation from the norm in how that NEPA review is conducted, but that is not the  
20 same thing as a clear, unambiguous expression of congressional intent to preclude any  
21 judicial review of NEPA claims related to the land exchange.

22 **c. Final Agency Action**

23 Because Plaintiffs must “proceed under the APA in order to challenge claimed  
24 violations of NEPA,” they also must comply with the APA’s “series of procedural  
25

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26 of commercial fishing on wild salmon. *Salmon Spawning*, 545 F.3d at 1229. Although the  
27 Ninth Circuit expressed doubt about “whether reinitiation will ultimately benefit the  
28 [plaintiffs],” it declined to dismiss that claim for lack of standing because the redressability  
requirement is diminished for procedural injuries and “[u]nlike the other claims, this claim  
is a forward-looking allegation whose remedy rests in the hands of federal officials and  
does not hinge on upsetting the Treaty.” *Id.*

1 requirements [that] litigants must fulfill before bringing suit in federal court,” including  
2 that “the challenged agency action must be final.” *San Carlos Apache Tribe v. United*  
3 *States*, 417 F.3d 1091, 1093, 1096-97 (9th Cir. 2005). As noted, the following two-part  
4 test governs whether agency action is considered final: *first*, the action must mark the  
5 consummation of the agency’s decision-making process; and *second*, the action must  
6 determine rights or obligations or be one from which legal consequences will flow. *Env’t*  
7 *Defense Ctr.*, 36 F.4th at 867-68.

8 The second element of the finality test is likely satisfied in relation to Plaintiffs’  
9 NEPA claims. SALECA provides that “[n]ot later than 60 days” after the FEIS is  
10 published, the Forest Service “shall convey all right, title, and interest of the United States  
11 in and to the Federal land to Resolution Copper.” 16 U.S.C. § 539p(c)(10). This suggests  
12 the land exchange is a “legal consequence” that will “flow” from the issuance of the FEIS.  
13 Although Plaintiffs have not identified any prior case concluding that a land exchange may  
14 qualify as a “legal consequence” for purposes of this test, this absence of authority is  
15 unsurprising given SALECA’s uniqueness and is not an obstacle to relief, given that the  
16 finality inquiry is meant to be “pragmatic and flexible” and “focus[] on the practical and  
17 legal effects of the agency action.” *Tohono O’odham Nation*, 138 F.4th at 1200 (cleaned  
18 up).

19 The first element of the finality test—whether there has been a “consummation of  
20 the agency’s decision-making process”—presents a more complicated question. As noted,  
21 in an ordinary NEPA process, the issuance of the FEIS does not mark the completion of  
22 the agency’s decision-making process—instead, that process only reaches completion after  
23 the agency issues its final ROD (which has not yet occurred here). For this reason, the  
24 Federal Defendants argue that “[a]s to the discretionary decisions that are before the Forest  
25 Service, neither the FEIS nor the Draft ROD represent the consummation of that process.  
26 The Forest Service’s decision-making process is ongoing and will not be complete until  
27 the Final ROD is signed. Any contrary interpretation would render the entire objection  
28 process meaningless.” (*AMRC*, Doc. 93 at 9.) Meanwhile, Plaintiffs accuse Defendants of

1 focusing on the wrong decision-making process and argue that the relevant process here  
 2 was simply the decision to issue the FEIS, which has now been completed. (*AMRC*, Doc.  
 3 97 at 12 [“The FEIS here is final as it concluded the agency’s responsibilities under NEPA.  
 4 . . . Under § 3003, the FEIS is the Forest Service’s final word before the Exchange is  
 5 executed and title is conveyed to RCM.”]; *San Carlos*, Doc. 119 at 5 [“[B]ecause SALECA  
 6 requires no further decisions—other than the decision to publish—before Oak Flat is  
 7 transferred, the 2025 FEIS necessarily consummates Federal Defendant’s environmental  
 8 review and decision-making processes under SALECA, NEPA, and NHPA.”].)<sup>11</sup>

9 Defendants likely have the better of this argument. As an initial matter, although  
 10 Plaintiffs identify several passages and parentheticals from Ninth Circuit decisions that can  
 11 be construed, at least in isolation, as suggesting that the issuance of a FEIS may alone  
 12 qualify as final agency action for purposes of a NEPA claim,<sup>12</sup> Defendants persuasively  
 13 explain why the better reading of those cases is that final agency action only occurs when  
 14 the FEIS *and* the ROD have been published. (*AMRC*, Doc. 93 at 9-10; *AMRC*, Doc. 94 at

15 <sup>11</sup> Plaintiffs also cite cases recognizing that an agency’s choice to embark on a  
 16 particular course of conduct without preparing an EIS may constitute final agency action  
 17 in the NEPA context. *Prutehi Litekyan: Save Ritidian v. U.S. Dep’t of Airforce*, 128 F.4th  
 18 1089, 1099-1100 (9th Cir. 2025) (final agency action existed where one agency (the Air  
 19 Force) applied to a different agency (the Guam EPA) for the renewal of a waste disposal  
 20 permit without “tak[ing] the requisite ‘hard look’ at the environmental impacts . . . and  
 21 appropriately engag[ing] the public before committing to its plan for disposal”);  
 22 *Rattlesnake Coalition v. U.S. E.P.A.*, 509 F.3d 1095, 1104 (9th Cir. 2007) (“[A]n agency’s  
 23 decision not to issue an EIS concludes the agency’s procedural inquiry into the  
 24 environmental impact of a proposed project and therefore constitutes a final agency action,  
 regardless of whether the agency has decided to fund the project.”). However, as noted,  
 the “NEPA review process concludes in one of two ways: (1) the agency determines  
 through an EA that a proposed action will not have a significant impact on the environment  
 and issues a FONSI, or (2) the agency determines that the action will have a significant  
 impact and issues an EIS and record of decision.” *Env’t Defense Ctr.*, 36 F.4th at 868.  
 Plaintiffs’ cited cases are thus unhelpful because they address situations where the agency  
 neglected environmental review altogether or achieved final agency action through an  
 EA/FONSI. Neither case addresses the FEIS/ROD option (which is the option the Forest  
 Service pursued here).

25 <sup>12</sup> *Env’t Defense Ctr.*, 36 F.4th at 868 (“We have repeatedly held that final NEPA  
 26 documents are final agency actions.”); *Oregon Natural Desert Ass’n*, 625 F.3d at 1118  
 27 (parenthetical stating that, according to the Eighth Circuit, the Supreme Court “has strongly  
 28 signaled that an agency’s decision to issue . . . an environmental impact statement is a ‘final  
 agency action’ permitting immediate judicial review under NEPA”) (citation omitted). In  
 the order addressing Plaintiffs’ earlier round of preliminary injunction motions, the Court  
 simply noted that these cases might support Plaintiffs’ position before clarifying that it was  
 not yet deciding the issue. (*AMRC*, Doc. 81 at 11 & n.3.)

1 17-18.) Indeed, one of Plaintiffs' cited cases makes that exact point: "*Once an EIS's*  
2 *analysis has been solidified in a ROD*, an agency has taken final agency action, reviewable  
3 under § 706(2)(A)." *Oregon Natural Desert Ass'n*, 625 F.3d at 1118 (emphasis added).  
4 So do other cases from within the Ninth Circuit. *See, e.g., Oregon Natural Resources*  
5 *Council*, 52 F.3d at 1508 ("A [ROD] comes at the end of the pre-decision, environmental  
6 review process . . ."); *Oregon Nat. Desert Ass'n v. Bushue*, 644 F. Supp. 3d 813, 830 (D.  
7 Or. 2022) ("NEPA review does not dictate a final agency decision until the agency adopts  
8 the proposed alternative with a ROD."). The Supreme Court also recently emphasized this  
9 point: "Because an EIS is only one input into an agency's decision and does not itself  
10 require any particular substantive outcome, the adequacy of an EIS is relevant only to the  
11 question of whether an agency's final decision . . . was reasonably explained." *Seven*  
12 *County Infrastructure Coalition*, 145 S. Ct. at 1511. "[R]eview of an agency's EIS is not  
13 the same thing as review of the agency's final decision concerning the project." *Id.* at 1514.

14 Moreover, even if it might be theoretically possible for an EIS alone to qualify as  
15 final agency action in some other context, the analysis here must be "pragmatic and  
16 flexible" and take account of SALECA's specific features. SALECA provides that the  
17 "[e]nvironmental analysis" set forth in the FEIS is to "be used as the basis for all decisions  
18 under Federal law related to the proposed mine and the Resolution mine plan of operations  
19 and any related major Federal actions significantly affecting the quality of the human  
20 environment, including the granting of any permits, rights-of-way, or approvals for the  
21 construction of associated power, water, transportation, processing, tailings, waste  
22 disposal, or other ancillary facilities." 16 U.S.C. § 539p(c)(9)(B) (emphasis added). This  
23 is a strong indication that the environmental analysis set forth in the FEIS was not intended  
24 to serve as a "decision" in and of itself—instead, it was simply intended to help inform the  
25 Forest Service's separate discretionary "decisions under Federal law" regarding pipelines,  
26 permits, and the like that have not yet been made with finality (and will eventually be set  
27 forth in the ROD).

28 This conclusion is also consistent with the line of Ninth Circuit cases stating that

1 courts should “look to see whether the agency has rendered its last word on the matter”  
2 when evaluating the first element of *Bennett’s* finality test. *Oregon Nat. Desert Ass’n v.*  
3 *U.S. Forest Serv.*, 465 F.3d 977, 984 (9th Cir. 2006). *See also Whitman v. Am. Trucking*  
4 *Associations*, 531 U.S. 457, 478 (2001) (“Only if the EPA has rendered its last word on the  
5 matter in question, is its action final and thus reviewable.”). The Forest Service hasn’t  
6 “rendered its last word” on any of the discretionary decisions it will be making in relation  
7 to the land exchange because it still has not issued the ROD. The *proposed* decisions  
8 addressed in the DROD are still subject to public review and revision.

9 With all of that said, it is a challenge to apply the Ninth Circuit’s “final agency  
10 action” precedents here because SALECA contemplates a unique environmental review  
11 process that deviates from how that process usually operates. Congress’s choice to make  
12 the issuance of the FEIS, rather than the issuance of the ROD, the triggering event for the  
13 land exchange makes it at least possible to conceptualize the FEIS as the agency’s “final  
14 word” on the matter of the land exchange, even though the FEIS does not inform the  
15 decision to transfer the land. This uncertainty raises serious questions about how to  
16 characterize the issuance of the FEIS under the first step of *Bennett’s* “pragmatic and  
17 flexible” finality test.

#### 18 d. No Agency Discretion

19 The Court is unpersuaded by Defendants’ “no agency discretion” arguments as  
20 applied to Plaintiffs’ NEPA claims. In advancing those arguments, Defendants rely on  
21 cases explaining that the question of *whether NEPA applies* ordinarily turns on whether an  
22 agency has discretion in relation to the underlying project that would be the subject of the  
23 environmental impact analysis. *See, e.g., Sierra Club v. Babbitt*, 65 F.3d 1502, 1512 (9th  
24 Cir. 1995) (explaining that NEPA’s “procedural requirements are triggered by a  
25 discretionary federal action”); *Citizens Against Rails-to-Trails v. Surface Transp. Bd.*, 267  
26 F.3d 1144, 1151 (D.C. Cir. 2001) (“The touchstone of whether NEPA applies is discretion  
27 . . . . If, however, the agency does not have sufficient discretion to affect the outcome of  
28 its actions, and its role is merely ministerial, the information that NEPA provides can have

1 no affect on the agency’s actions, and therefore NEPA is inapplicable.”). Here, Congress  
2 has already specified that NEPA applies—the Forest Service “shall carry out the land  
3 exchange in accordance with the requirements of [NEPA]” and “shall prepare a single  
4 environmental impact statement under [NEPA].” 16 U.S.C. § 539p(c)(9)(A)-(B).

5 Additionally, the Forest Service possesses discretion with respect to many issues  
6 related to the land exchange, “including the granting of any permits, rights-of-way, or  
7 approvals for the construction of associated power, water, transportation, processing,  
8 tailings, waste disposal, or other ancillary facilities.” *Id.* § 539(c)(9)(B). It is permissible,  
9 under NEPA, for Plaintiffs to challenge the adequacy of the Forest Service’s analysis of  
10 the environmental impact of those decisions. That challenge may be premature, due to the  
11 likely absence of “final agency action,” but it does not fail for want of agency discretion.  
12 In arguing otherwise, Defendants conflate the substance of Plaintiffs’ NEPA challenge  
13 with the remedy they seek. (*San Carlos*, Doc. 105 at 14 [“In an effort to defeat standing  
14 and avoid judicial review, Federal Defendants and Resolution reduce the Tribe’s  
15 challenges to one contesting Oak Flat’s transfer, which they assert is not a ‘decision’ within  
16 the meaning of the APA because Congress gave them no discretion. The Tribe, however,  
17 does not challenge the decision to convey Oak Flat as arbitrary and capricious. Instead,  
18 the Tribe asserts that the Forest Service’s decision to publish the 2025 FEIS, as well as the  
19 decisions in it related to various action alternatives are arbitrary and capricious.”].)

20 e. **Vacatur As A Remedy**

21 As noted, Defendants argue that because the usual remedy under the APA and  
22 NEPA for a flaw in an environmental impact statement is not to order vacatur of the  
23 statement but simply to remand to the agency for additional analysis or consultation, and  
24 because the land exchange must go forward on August 19, 2025 in the absence of vacatur,  
25 Plaintiffs are effectively without a meaningful remedy with respect to their NEPA claims.  
26 (*AMRC*, Doc. 93 at 50; *AMRC*, Doc. 94 at 19.)

27 On the one hand, Defendants are correct that vacatur is not always the remedy in an  
28 APA action—sometimes, it is enough to remand for further consideration without formally

1 vacating the agency decision that was found to be flawed. *See, e.g., Ctr. for Biological*  
2 *Diversity v. Bureau of Land Mgmt.*, 141 F.4th 976, 1015-16 (9th Cir. 2025) (“Having  
3 weighed the equities, vacatur is unwarranted because the procedural error is minor and the  
4 on-the-ground consequences of vacatur would be severe. Still, we expect and urge BLM  
5 to move promptly in rectifying the ROD’s deficiencies on remand. But because we have  
6 been given no reason to believe that the agency would be unable to cure those deficiencies,  
7 we remand without vacating BLM’s 2023 approval of the Project.”) (cleaned up); *Cal.*  
8 *Communities Against Toxics v. U.S. E.P.A.*, 688 F.3d 989, 992 (9th Cir. 2012) (“That brings  
9 us to whether we must vacate the EPA’s final rule. A flawed rule need not be vacated.  
10 Indeed, when equity demands, the regulation can be left in place while the agency follows  
11 the necessary procedures to correct its action. . . . Whether agency action should be vacated  
12 depends on how serious the agency’s errors are and the disruptive consequences of an  
13 interim change that may itself be changed.”) (cleaned up). *See also Seven County*  
14 *Infrastructure Coalition*, 145 S. Ct. at 1514 (“Even if an EIS falls short in some respects,  
15 that deficiency may not necessarily require a court to vacate the agency’s ultimate approval  
16 of a project, at least absent reason to believe that the agency might disapprove the project  
17 if it added more to the EIS.”).

18 On the other hand, Defendants’ cited cases do not foreclose the availability of  
19 vacatur as a remedy. Indeed, the Ninth Circuit has stated that “[w]e order remand without  
20 vacatur only in limited circumstances.” *Pollinator Stewardship Council v. U.S. E.P.A.*,  
21 806 F.3d 520, 532 (9th Cir. 2015). Further, Defendants’ cited cases emphasize that vacatur  
22 should be avoided when actions have already been undertaken in reliance on the agency’s  
23 final decision and the “on-the-ground” consequences of halting those actions would be  
24 “severe” and “disruptive.” But that is not the situation here—Plaintiffs seek to enjoin the  
25 land exchange before it occurs. Nor has the Forest Service yet made any final discretionary  
26 decisions related to the land exchange—those will only come when the ROD is issued.

27 This marks another instance where, due to the unique nature of SALECA, the  
28 applicable precedents do not provide an obvious answer. The Court thus concludes that

1 Plaintiffs have, at a minimum, established serious questions going to the availability of  
2 vacatur as a remedy (which, in turn, informs the redressability analysis).

3 2. Merits

4 Before turning to the merits of Plaintiffs' NEPA claims, it is helpful to begin with  
5 some first principles. Earlier this year, the Supreme Court announced "[a] course  
6 correction of sorts . . . to bring judicial review under NEPA back in line with the statutory  
7 text and common sense." *Seven County Infrastructure Coalition*, 145 S. Ct. at 1514. The  
8 Court continued: "In light of the continuing confusion and disagreement in the Courts of  
9 Appeals over how to handle NEPA cases, we think it important to reiterate and clarify the  
10 fundamental principles of judicial review applicable in those cases." *Id.* at 1511.

11 Throughout the opinion, the Court emphasized that the "central principle of judicial  
12 review in NEPA cases is deference." *Id. See also id.* at 1515 ("The bedrock principle of  
13 judicial review in NEPA cases can be stated in a word: Deference."). The Court also  
14 clarified that "[w]hen a party argues that an agency action was arbitrary and capricious due  
15 to a deficiency in an EIS, the reviewing court must account for the fact that NEPA is a  
16 purely procedural statute. Under NEPA, an agency's only obligation is to prepare an  
17 adequate report. . . . Unlike a plethora of other federal environmental statutes (such as the  
18 Clean Air Act, the Clean Water Act, etc.), NEPA imposes no substantive constraints on the  
19 agency's ultimate decision to build, fund, or approve a proposed project. So when  
20 reviewing an agency's EIS, the only role for a court is to confirm that the agency has  
21 addressed environmental consequences and feasible alternatives as to the relevant project."  
22 *Id.* at 1511 (cleaned up). "In short, when determining whether an agency's EIS complied  
23 with NEPA, a court should afford substantial deference to the agency." *Id.* at 1511-12.

24 The Court also provided concrete examples of the forms this deference should take.  
25 For instance, "the question of whether a particular report is detailed enough in a particular  
26 case itself requires the exercise of agency discretion—which should not be excessively  
27 second-guessed by a court." *Id.* at 1512. Additionally, "[a]n agency must make predictive  
28 and scientific judgments in assessing the relevant impacts . . . and alternatives . . . . Black-

1 letter administrative law instructs that when an agency makes those kinds of speculative  
2 assessments or predictive or scientific judgments, and decides what qualifies as significant  
3 or feasible or the like, a reviewing court must be at its ‘most deferential.’” *Id.* “To tie all  
4 of this together: When assessing significant environmental effects and feasible alternatives  
5 for purposes of NEPA, an agency will invariably make a series of fact-dependent, context-  
6 specific, and policy-laden choices about the depth and breadth of its inquiry—and also  
7 about the length, content, and level of detail of the resulting EIS. Courts should afford  
8 substantial deference and should not micromanage those agency choices so long as they  
9 fall within a broad zone of reasonableness.” *Id.* at 1513.

10 The Court concluded that “the proper judicial approach for NEPA cases is  
11 straightforward: Courts should review an agency’s EIS to check that it addresses the  
12 environmental effects of the project at hand. . . . In conducting that review, courts should  
13 afford substantial deference to the agency as to the scope and contents of the EIS.” *Id.* at  
14 1518. The Court also emphasized that “Congress did not design NEPA for *judges* to  
15 hamstring new infrastructure and construction projects.” *Id.* at 1514.

16 a. **Statement Of “Purpose And Need” And Range Of**  
17 **Alternatives**

18 AMRC’s first NEPA argument is that the Forest Service “reviewed the project under  
19 an incorrect legal regime, resulting in an improper statement of the ‘purpose and need’ and  
20 range of reasonable alternatives.” (*AMRC*, Doc. 87 at 18-20.) The thrust of this argument  
21 is that the Forest Service operated under the “mistaken belief” that “it had no authority to  
22 deny the proposed pipelines, transmission lines, roads, and other facilities” that would be  
23 located on federal land following the land exchange. (*Id.*) According to AMRC, the Forest  
24 Service thus mistakenly applied “the agency’s mining regulations at 36 C.F.R. Part 228A”  
25 when reviewing those proposals, rather than applying “the totally-discretionary FLPMA  
26 special use permitting rules at 36 C.F.R. Parts 251 and 261.” (*Id.*) In its reply, AMRC  
27 reiterates this criticism—“The agency believes that because it would not have authority  
28 over the underground mine (after the Exchange), it also does not have discretionary

1 authority over the infrastructure permits on the remaining public lands”—and argues, in a  
2 related vein, that the Forest Service mistakenly “failed to consider the alternative that, after  
3 the Exchange, the mine could not proceed if the agency denies the special use permits for  
4 the pipelines and other infrastructure.” (*AMRC*, Doc. 97 at 15-16.)

5 AMRC is unlikely to succeed on these arguments. It is simply not true that the  
6 Forest Service mistakenly believed it was required to automatically approve all of the  
7 pipelines and other mine-related infrastructure that, under the proposed mine plan of  
8 operations, would be located on federal land following the land exchange. Although page  
9 92 of the FEIS states that “the Forest Service is unable to refuse approval of the GPO within  
10 their regulations and guidance” (*AMRC*, Doc. 93-1 at 15), that statement, when viewed in  
11 proper context, only refers to Resolution Copper’s planned use of *non*-federal land  
12 following the land exchange. The executive summary of the FEIS states in plain terms that  
13 “[t]he purpose and need of this project is twofold,” one of which is “[t]o *consider* approval  
14 of a proposed GPO governing surface disturbance on NFS lands—*outside the exchange*  
15 *parcels*—from mining operations that are reasonably incident to extraction, transportation,  
16 and processing of copper and molybdenum.” (*San Carlos*, Doc. 105-9 at 9, emphasis added  
17 [FEIS page ES-6].) Other portions of the record likewise make clear that the Forest Service  
18 understood that it had discretion over proposals related to the post-exchange use of federal  
19 land and that its evaluation of those proposals was governed by the special use permitting  
20 rules appearing at 36 C.F.R. Part 251:

21 The Forest Service is making a decision regarding *whether* and how to  
22 authorize the use and occupancy of NFS land for mine-related pipeline and  
23 power line infrastructure crossing NFS lands, along with maintenance,  
24 reconstruction, and use of NFS roads. *Any associated uses of NFS land for*  
25 *pipelines and utilities are special uses and are regulated under 36 CFR §*  
26 *251.50 . . . [and] requires submittal of a special use application (SF-299).*  
27 This application process is designed to ensure that authorizations to use and  
28 occupy NFS lands are in the public interest. . . . In processing the application,  
the Forest Service must consider the potential environmental effects of  
authorizing the proposed uses of NFS land in accordance with the National  
Environmental Policy Act (NEPA), and the Forest Supervisor must proceed  
to either approve or deny the authorization. The special use authorization

1 (SUA) must include terms and conditions, including minimizing damage to  
2 the environment, protecting the public interest, and requiring compliance  
3 with water and air quality standards.

4 (AMRC, Doc. 87-3 at 16, emphasis added.)

5 Indeed, throughout the FEIS, the Forest Service explicitly stated that it was aware  
6 of, and applying, both sets of regulations. (AMRC, Doc. 93-1 at 16 [FEIS page 135: “The  
7 role of the Forest Service under its primary authorities in the Organic Administration Act,  
8 Locatable Regulations (36 CFR 228 Subpart A), and Multiple-Use Mining Act is to ensure  
9 that mining activities minimize adverse environmental effects on NFS surface resources.  
10 The role of the Forest Service under special use authorizations (36 CFR 251 Subpart B)  
11 would include terms and conditions to minimize damage to the environment, protect the  
12 public interest, and require compliance with water and air quality standards.”]; *id.* at 13,  
13 emphasis added [FEIS page 21: “If the land exchange occurs, then the mine, all processing  
14 facilities, and the tailings storage facility would be located off of NFS lands. The remaining  
15 portions of the project on NFS land would be roads, pipelines, and utilities. *Any associated*  
16 *uses of NFS land such as roads, pipelines, and utilities are considered special uses and*  
17 *regulated under 36 CFR 251.50.”].)*

18 Finally, to the extent AMRC contends these perceived flaws also tainted the Forest  
19 Service’s identification of the no-action alternative, this argument fails not only because it  
20 rests on a faulty premise but also because agencies are entitled to substantial deference  
21 when assessing “feasible alternatives” and making “fact-dependent, context-specific, and  
22 policy-laden choices about the depth and breadth of its inquiry.” *Seven County*  
23 *Infrastructure Coalition*, 145 S. Ct. at 1513. Given Congress’s policy judgment, expressed  
24 in SALECA, that the land exchange should go forward so Resolution Copper can engage  
25 in copper mining, it was logical—and, at a minimum, fell within the “broad zone of  
26 reasonableness” described in *Seven County Infrastructure Coalition*—for the Forest  
27 Service to reject the no-action alternatives posited by AMRC. *Headwaters, Inc. v. Bureau*  
28 *of Land Mgmt., Medford Dist.*, 914 F.2d 1174, 1180 (9th Cir. 1990) (“[NEPA] does not

1 require the consideration of alternatives whose effect cannot be reasonably ascertained, and  
2 whose implementation is deemed remote and speculative. Nor must an agency consider  
3 alternatives which are infeasible, ineffective, or inconsistent with the basic policy  
4 objectives for the management of the area.”) (cleaned up).

5 **b. Direct, Indirect, And Cumulative Impacts**

6 AMRC’s second NEPA argument is that the Forest Service “failed to properly  
7 analyze the project’s direct, indirect, and cumulative impacts.” (AMRC, Doc. 87 at 20-22.)  
8 More specifically, AMRC argues that (1) despite the massive amount of water the mine  
9 will require, the FEIS did not meaningfully disclose and analyze the direct and indirect  
10 effects of the planned Desert Wellfield; and (2) the FEIS did not consider other reasonably  
11 foreseeable activities that will cumulatively impact the available water in the East Salt  
12 River Valley—most notably, by arbitrarily deeming it “speculative” that the Superstition  
13 Vistas development would continue growing even though over 900,000 people are  
14 expected to live there. (*Id.*)

15 AMRC is unlikely to succeed on these arguments. As an initial matter, some of  
16 AMRC’s arguments regarding Superstition Vistas are factually inaccurate. True, the FEIS  
17 contains passages characterizing the further development of this project as “speculative,”  
18 but ARMC ignores that the Forest Service proceeded to analyze the expected water use  
19 associated with this development despite that characterization:

20 We considered a number of specific projects or actions related to water  
21 supplies during the cumulative effects analysis process, including the . . .  
22 Future Superstition Vistas Development Area on Arizona State Trust Land.  
23 *Some of these normally would not be analyzed as cumulative effects because*  
24 *they do not meet the appropriate screening criteria to be considered*  
25 *reasonably foreseeable future actions. For example, . . . [t]he Superstition*  
26 *Vistas development area . . . development plans are conceptual and lack*  
27 *adequate detail to allow substantial analysis of resource effects and thus*  
28 *normally would be considered speculative, not reasonably foreseeable.*  
*Regardless of the screening outcomes, due to the great interest expressed by*  
*the public and cooperating agencies in water-related issues, we have added*  
*this section to the cumulative effects analysis to discuss these regional water*  
*supply issues in the context of the Resolution Copper Project’s use of water.*

1 (AMRC, Doc. 93-1 at 157, emphases added [FEIS page 977].) Elsewhere, the FEIS  
2 elaborates: “While the lack of detailed water use plans prevents specific analysis of most  
3 of the Superstition Vistas development, some estimates indicate that a population of  
4 900,000 could live in this area. Throughout the Resolution Copper Project NEPA process,  
5 the ASLD has raised concerns about the potential future water supply to support the  
6 Superstition Vistas development. The cumulative effects modeling described below was  
7 undertaken in part to investigate the potential impacts to the Superstition Vistas water  
8 supply.” (*Id.* at 164 [FEIS page 165].) Finally, in Appendix R, the Forest Service  
9 explained that although “Superstition Vistas was not analyzed as a standalone RFFA” for  
10 various reasons, including that “[it] is considered too speculative to estimate if, when, or  
11 to what extent development may occur in these areas,” “*we still incorporated the future*  
12 *growth in the Superstition Vistas planning area conceptually. . . .* Note that we expanded  
13 the FEIS cumulative effects analysis (chapter 4) to quantify the cumulative effects of  
14 competing water uses in the region and the ramifications of ongoing drought or future  
15 meteorological trends. This includes the Superstition Vistas development.” (*Id.* at 234,  
16 emphasis added [FEIS page R-340].)

17 AMRC also contends, seemingly in the alternative, that even if the Forest Service  
18 made some effort to consider the anticipated water use associated with Superstition Vistas,  
19 it used flawed modeling techniques by only considering “holistic” or “qualitative” impacts  
20 and not performing an “objective,” “quantified assessment.” (AMRC, Doc. 97 at 17.)  
21 AMRC raises similar criticisms regarding the Forest Service’s techniques for analyzing  
22 Desert Wellfield’s anticipated water use. But as recently emphasized by the Supreme  
23 Court, “when an agency makes those kinds of speculative assessments or predictive or  
24 scientific judgments, . . . a reviewing court must be at its ‘most deferential.’” *Seven County*  
25 *Infrastructure Coalition*, 145 S. Ct. at 1512. The bottom line is that the FEIS contains  
26 extensive analysis regarding water-use issues, including various forms of modeling related  
27 to the anticipated water use associated with Desert Wellfield and Superstition Vistas.  
28 Chapter 3.7 of the FEIS, entitled “Water Resources,” itself spans over 200 pages. (*San*

1 *Carlos*, Doc. 106-3 at 4 [FEIS table of contents: showing that Chapter 3.7 spans pages 381-  
2 599].) “This section analyzes how the Resolution Copper Project could affect water  
3 availability and quality in three key areas: groundwater quantity and groundwater-  
4 dependent ecosystems (GDEs), groundwater and surface water quality, and surface water  
5 quantity.” (*San Carlos*, Doc. 105-9 at 28 [FEIS page ES-25: executive summary of Chapter  
6 3.7].) The FEIS also repeatedly acknowledges that the anticipated water use by the mine  
7 will be substantial and may result, directly and indirectly, in alarming environmental  
8 consequences. (*See, e.g., AMRC*, Doc. 93-1 at 169 [FEIS page 989: “[U]ltimately, long-  
9 term use of groundwater may become unsustainable, even without considering the growth  
10 of the Superstition Vistas development.”]; *San Carlos*, Doc. 105-9 at 6-7 [FEIS pages ES-  
11 3-4: noting that “[t]he estimated total quantity of external water needed for the life of the  
12 mine . . . is substantial” and that “[w]ater use is a major concern among the public, other  
13 government agencies, and interested parties”].)

14 It is thus evident that the Forest Service took the requisite “hard look” at water-use  
15 issues that is required by NEPA. *Cf. Audubon Society of Portland v. Haaland*, 240 F.4th  
16 967, 984 (9th Cir. 2022) (“We next consider whether, under NEPA, [the agency] took a  
17 sufficiently thorough ‘hard look’ at the environmental effects of pesticides on the Refuges  
18 in concluding that pesticides could continue to be used with minimal environmental  
19 consequences. In performing this review, we do not fly-speck [the agency’s] analysis and  
20 . . . employ a rule of reason to determine whether it contains a reasonably thorough  
21 discussion of the significant aspects of the probable environmental consequences. Under  
22 NEPA, we refrain from acting as a type of omnipotent scientist and must defer to an  
23 agency’s decision that is fully informed and well-considered.”) (cleaned up). Even if the  
24 Forest Service could have used different technical water-use modeling techniques in some  
25 instances, such “fact-dependent, context-specific, and policy-laden choices” are entitled to  
26 “substantial deference” and “should not [be] micromanage[d]” so long “as they fall within  
27 a broad zone of reasonableness.” *Seven County Infrastructure Coalition*, 145 S. Ct. at  
28 1513. Such is the case here.

1 c. **Comments From Other Agencies**

2 AMRC's third NEPA argument is that "[t]he Forest Service failed to meaningfully  
3 consider comments from other agencies." (*AMRC*, Doc. 87 at 22-25.) More specifically,  
4 AMRC contends the Forest Service ignored the "significant criticisms" raised by the  
5 Bureau of Land Management ("BLM") and the Arizona State Lands Department  
6 ("ASLD"), both of whom are "cooperating agencies" on the FEIS. (*Id.* at 22.) Relying on  
7 cases from outside the Ninth Circuit, AMRC contends that NEPA creates a duty to provide  
8 a reasoned response to any criticisms raised by cooperating agencies. (*Id.* at 23.)

9 Even assuming the Ninth Circuit follows such a rule, AMRC is unlikely to succeed  
10 on this argument because it rests on an inaccurate factual premise—although the Forest  
11 Service may not have *adopted* the views of BLM and ASLD on certain disputed issues, it  
12 did not *ignore* those agencies' views. For example, BLM issued a 26-page, singled-spaced  
13 report in June 2022 that raised an array of concerns with, *inter alia*, how the 2021 version  
14 of the EIS addressed hydrology and water-use issues. (*AMRC*, Doc. 87-1.) Those concerns  
15 were often extremely technical in nature and involved, for example, contentions that the  
16 2021 version of the EIS improperly "include[d] dewatering in the analysis of the No Action  
17 alternative" (*id.* at 14); failed to consider "indirect effects of mining impacting groundwater  
18 resources in the Cutter Basin" (*id.*); failed to properly address "[t]he Drought Contingency  
19 Plan" (*id.* at 15); and failed to consider the cumulative impact of the planned mining  
20 activities on private well owners (*id.* at 20 ["The BLM reviewers wondered if the  
21 dewatering of the shallow aquifer will forever prevent any future landowner or  
22 development from using the shallow Apache Leap tuff aquifer as a water source, which  
23 would force any development or landowner to either drill a more expensive well to a deeper  
24 water source, or force them to obtain water from another basin?"]). The 2025 FEIS, in  
25 turn, directly acknowledges and addresses many of those concerns, even if it does not  
26 specifically identify the BLM report as their source:<sup>13</sup>

27 <sup>13</sup> In addition to arguing that the FEIS functionally addressed the criticisms in the BLM  
28 report without "[m]entioning the BLM report by name," the Federal Defendants contend  
that the Forest Service separately issued "[a] detailed memorandum on the BLM report,"  
which "is part of the administrative record for the project." (*AMRC*, Doc. 93 at 27 n.13.)

1 We received many comments expressing concern with regional water  
2 supplies, current and future stresses on water supplies from drought and  
3 future meteorological trends, and the ramifications of Resolution Copper's  
4 use of water in the face of competing water uses. We considered a number  
5 of specific projects or actions related to water supplies during the cumulative  
6 effects analysis process, including the following: Arizona's Drought  
7 Contingency Plan; Resolution Copper's Potential Allocation of CAP Water;  
8 Town of Florence Development Projects; Population Change; Recent  
9 Modeling Reports Projecting Water Shortages in Pinal County; Assured  
10 Water Supplies in the East Salt River Valley; Future Superstition Vistas  
11 Development Area on Arizona State Trust Land. . . . Regardless of the  
12 screening outcomes, due to the great interest expressed by the public *and*  
13 *cooperating agencies* in water-related issues, we have added this section to  
14 the cumulative effects analysis to discuss these regional water supply issues  
15 in the context of the Resolution Copper Project's use of water.

16 (AMRC, Doc. 93-1 at 157, emphasis added [FEIS page 977]. *See also id.* at 42-46 [FEIS  
17 pages 437-41: providing an extensive new discussion of "indirect impacts to Tribal water  
18 resources in the Cutter Basin" in response to "concerns [that] were raised" regarding the  
19 2021 EIS's analysis of that topic].)

20 Perhaps the Forest Service could have done even more to specifically address each  
21 and every one of the many detailed, technical criticisms set forth in BLM's June 2022  
22 report, but NEPA does not require that level of detail. As the Federal Defendants note  
23 without contradiction in their brief, "[t]he water analysis alone included 38 participants  
24 representing the Forest Service and contractors, six cooperating agencies or stakeholders  
25 (including Dr. Wells on behalf of the San Carlos Apache Tribe), and Resolution Copper  
26 and contractors." (AMRC, Doc. 93 at 28 n.14.) Particularly in a project of this magnitude,  
27 it will always be possible to identify some argument, raised by some stakeholder, that could  
28 have been analyzed in more detail in the FEIS. Nevertheless, "the question of whether a  
particular report is detailed enough in a particular case itself requires the exercise of agency

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AMRC, in turn, contends the Court may not consider this memorandum because it was not included in the FEIS or published on the Forest Service's website at the time of the FEIS's publication. (AMRC, Doc. 97 at 18 & n.4.) The Court finds it unnecessary to resolve this argument because, as discussed above, AMRC's NEPA challenge fails even if the analysis is confined to the FEIS.

1 discretion—which should not be excessively second-guessed by a court.” *Seven County*  
2 *Infrastructure Coalition*, 145 S. Ct. at 1512. *See also id.* at 1518 (“Courts should review  
3 an agency’s EIS to check that it addresses the environmental effects of the project at hand.  
4 . . . In conducting that review, courts should afford substantial deference to the agency as  
5 to the scope and contents of the EIS.”). With recognition that the “central principle of  
6 judicial review in NEPA cases is deference,” *id.* at 1511, the Court concludes that AMRC  
7 is unlikely to succeed on its contention that the Forest Service arbitrarily and capriciously  
8 ignored BLM’s criticisms.

9 The analysis is even more straightforward with respect to ASLD. AMRC contends  
10 that ASLD raised various concerns regarding Superstition Vistas and that those “concerns  
11 were largely ignored, as the Forest Service erroneously concluded that most of the  
12 Superstition Vistas is ‘speculative.’” (*AMRC*, Doc. 87 at 25.) But as discussed in the  
13 preceding section of this order, the Forest Service proceeded to analyze the expected water  
14 use associated with the Superstition Vistas development despite the purportedly  
15 speculative nature of that development. Furthermore, the Forest Service specifically  
16 indicated, in various portions of the FEIS, that it had revised its analysis in response to  
17 concerns identified by ASLD. (*See, e.g., San Carlos*, Doc. 109-2 at 50-51 [FEIS pages R-  
18 43-44: photocopy of November 7, 2019 letter from ASLD with superimposed comment  
19 boxes indicating where the Forest Service’s responsive comments may be located in the  
20 FEIS]; *id.* at 81 [FEIS page R-74: table identifying ASLD’s comment and indicating where  
21 the Forest Service’s responsive comments may be located in the FEIS]; *AMRC*, Doc. 93-1  
22 at 233 [FEIS page R-287: “These comments concern the potential impact to Arizona State  
23 Trust land, specifically the future Superstition Vistas development area in the East Salt  
24 River valley. Many public comments raised the issue of competing water uses, water  
25 scarcity, and regional water supplies. We added discussion of this topic to the FEIS. This  
26 includes the Superstitions Vistas development.”]; *id.* at 234 [FEIS page R-340: “These  
27 comments specifically mention the planned Superstitions Vistas development area in the  
28 East Salt River valley. . . . Note that we expanded the FEIS cumulative effects analysis

1 (chapter 4) to quantify the cumulative effects of competing water uses in the region and  
2 the ramifications of ongoing drought or future meteorological trends. This includes the  
3 Superstition Vistas development.”].) Again, even if the Forest Service could have done  
4 more to specifically address ASLD’s criticisms, the Court must give deference to the Forest  
5 Service’s determination as to just how detailed the FEIS needed to be. *Seven County*  
6 *Infrastructure Coalition*, 145 S. Ct. at 1512, 1518. Particularly in light of that deference,  
7 the Forest Service’s choice likely fell within the “broad zone of reasonableness,” which  
8 means that AMRC is unlikely to succeed on its NEPA challenge.

9 **d. Mitigation Measures**

10 AMRC’s fourth NEPA argument is that the Forest Service “failed to consider, and  
11 require, sufficient mitigation measures,” “especially regarding the groundwater pumping  
12 and transport via the proposed pipelines.” (*AMRC*, Doc. 87 at 25-27.)

13 These criticisms require little additional discussion in light of the analysis in the  
14 preceding sections of this order. The FEIS includes hundreds of pages of detailed analysis  
15 regarding water usage, including analysis regarding mitigation measures: “We developed  
16 a robust monitoring and mitigation strategy to avoid, minimize, rectify, reduce, or  
17 compensate for resource impacts that have been identified during the process of preparing  
18 this EIS. Appendix J contains descriptions of mitigation measures that are being required  
19 by the Forest Service and mitigation measures voluntarily brought forward and committed  
20 to by Resolution Copper. Appendix J also contains descriptions of monitoring that would  
21 be needed to identify potential impacts and mitigation effectiveness.” (*AMRC*, Doc. 93-1  
22 at 72 [FEIS page 562]. *See also id.* at 16-24 [FEIS pages 135-43: overall framework for  
23 mitigation].) AMRC’s criticisms of the scope and substance of that analysis are  
24 insufficient to overcome the deference required by *Seven County Infrastructure*  
25 *Coalition*.<sup>14</sup>

26  
27 <sup>14</sup> In a related vein, to the extent AMRC argues the Forest Service should have made  
28 “Measure PF-WR-03” mandatory (*AMRC*, Doc. 87 at 26), the Court agrees with the  
Federal Defendants that Forest Service did not act arbitrarily and capriciously in  
concluding it lacked regulatory authority as to this specific issue because Resolution  
Copper’s recovery wells will not be located on federal land. (*AMRC*, Doc. 93-1 at 228

1 e. **Tailings Storage Facility Alternatives And Pipelines**

2 The Tribe's first NEPA argument is that the "FEIS is woefully inadequate in how it  
3 addresses issues related to the tailings storage facility alternatives and both the failings and  
4 concentrate pipelines." (*San Carlos*, Doc. 105 at 19-22.) In support, the Tribe proffers a  
5 declaration from Dr. Steven Emerman, which identifies 14 asserted deficiencies in the  
6 FEIS's analysis. (*San Carlos*, Doc. 109-6 at 3-6.) Enclosed as an attachment to the  
7 declaration is a 67-page report from Dr. Emerman, which describes the asserted  
8 deficiencies in more detail. (*Id.* at 7-73.) The Federal Defendants, in turn, have moved to  
9 strike Dr. Emerman's declaration because it "offer[s] improper expert opinions that were  
10 not before agency decision-makers from the United States Forest Service in this matter."  
11 (*San Carlos*, Doc. 115 at 1.) In response, the Tribe identifies various reasons why Dr.  
12 Emerman's declaration may be considered despite the usual rule barring the consideration  
13 of extra-record evidence in an APA action. (*San Carlos*, Doc. 120.)

14 The Court agrees with the Tribe that at least some aspects of Dr. Emerman's  
15 declaration may be considered—and, thus, the declaration need not be stricken. Of course,  
16 "[w]hen reviewing an agency decision, the focal point for judicial review should be the  
17 administrative record already in existence, not some new record made initially in the  
18 reviewing court. Parties may not use post-decision information as a new rationalization  
19 either for sustaining or attacking the Agency's decision." *Ctr. for Biological Diversity v.*  
20 *U.S. Fish & Wildlife Serv.*, 450 F.3d 930, 943 (9th Cir. 2006) (cleaned up). The Ninth  
21 Circuit has "recognized four exceptions to this rule, allowing extra-record materials (1) if  
22 necessary to determine whether the agency has considered all relevant factors and has  
23 explained its decision, (2) when the agency has relied on documents not in the record,  
24 (3) when supplementing the record is necessary to explain technical terms or complex  
25 subject matter, or (4) when plaintiffs make a showing of agency bad faith." *Id.* (cleaned  
26 up). "These exceptions are narrowly construed and applied," *Lands Council v. Powell*, 395  
27 F.3d 1019, 1030 (9th Cir. 2004), and the party seeking to invoke an exception bears a

28 \_\_\_\_\_  
[FEIS page R-235].)

1 “heavy burden,” *Fence Creek Cattle Co. v. U.S. Forest Serv.*, 602 F.3d 1125, 1131 (9th  
2 Cir. 2010).

3 If Dr. Emerman had simply been retained by the Tribe, following the conclusion of  
4 the Forest Service’s environmental impact analysis, to attempt to poke holes in that  
5 analysis, there is a strong argument his declaration would be impermissible. Although the  
6 Tribe asserts that Dr. Emerman’s declaration “do[es] not ask the district court to second  
7 guess the Forest Service’s scientific judgments or conclusions” and is simply being  
8 provided to identify the relevant factors the Forest Service should have considered (*i.e.*, the  
9 first *Lands Council* exception) and/or to provide background information regarding  
10 technical terms (*i.e.*, the third *Lands Council* exception) (*San Carlos*, Doc. 120 at 5-6), this  
11 is obviously untrue—the main point of Dr. Emerman’s declaration is to criticize the  
12 substance of the Forest Service’s conclusions. (*See, e.g., San Carlos*, Doc. 109-6 ¶ 4 [“As  
13 more fully stated in the memorandum that I authored, attached as Exhibit A, the 2025 FEIS  
14 fails to adequately address fourteen substantive areas related to tailings storage facilities  
15 and both tailings pipelines and concentrate pipelines.”]; *id.* ¶ 8 [“As such, the 2025 FEIS  
16 fails to address and analyze the risks and potential environmental impacts presented by the  
17 Application to the degree required under NEPA . . . .”].) Courts should not allow litigants  
18 in an APA action to sneak in after-the-fact substantive criticisms of the agency’s analysis  
19 under the guise of providing background details. *See, e.g., Asarco, Inc. v. U.S. Env’t*  
20 *Protection Agency*, 616 F.2d 1153, 1160-61 (9th Cir. 1980) (“[W]e think that the district  
21 court went too far in its consideration of evidence outside the administrative record. . . .  
22 Most of the expert testimony . . . should not have been admitted or at least not have been  
23 considered for the purpose of judging the wisdom of the EPA’s stack-testing requirement.  
24 This technical testimony was plainly elicited for the purpose of determining the scientific  
25 merit of the EPA’s decision.”); *Bartell Ranch LLC v. McCullough*, 2021 WL 6118738, \*5  
26 (D. Nev. 2021) (denying supplementation request where “the Court is left with the  
27 impression . . . that Lithium Nevada seeks to use the Monitoring Plan,” “not to explain  
28 technical subject matter,” but “to impermissibly support the ‘correctness or wisdom of the

1 agency's decision") (citation omitted); *Alea Valley Alliance v. Evans*, 143 F. Supp. 2d  
2 1214, 1216 (D. Or. 2001) ("[A] party may not circumvent the general rule, that judicial  
3 review is limited to the administrative record, by simply labeling a declaration as 'assisting  
4 the court.')" (citation omitted).

5 With that said, Dr. Emerman is not attempting to raise entirely *new* arguments and  
6 criticisms that were not previously presented to the Forest Service. The FEIS reflects that  
7 Dr. Emerman raised many of the criticisms set forth in his declaration as objections to the  
8 draft EIS and that the Forest Service specifically considered and addressed those criticisms  
9 in the appendix to the FEIS. (*See, e.g., San Carlos*, Doc. 109-2 at 220 [FEIS page R-213:  
10 "Comment response" regarding "Volcanism and seismic data sources," explaining that  
11 "additional investigation and updated data sources have been received since the DEIS . . .  
12 including a report by Dr. S. Emerman (Appendix B-5 to the letter)"]; *id.* at 311 [FEIS page  
13 R-304: "Comment response" regarding "FMEA, breach analysis, seismic analysis,  
14 planning," which was "Responsive to these comments: . . . 30145-5 (Emerman4), 30145-  
15 6 (Emerman4), 30145-7 (Emerman4), 30145-8 (Emerman4)."]; *id.* at 340 [FEIS page R-  
16 333: "Comment response" regarding "Disclosed water use is incorrect and unrealistic,"  
17 addressing various criticisms raised by Dr. Emerman].) Under these circumstances, at least  
18 some portions of Dr. Emerman's declaration may be considered. *Cf. Asarco*, 616 F.2d at  
19 1156, 1160-61 (concluding that the testimony from Cahill describing "the history of  
20 Asarco's communications with the EPA concerning compliance with its testing  
21 requirements" "could be considered under the standards we have set forth," even though  
22 much of the other testimony was impermissible, where Cahill "sent a letter to the EPA  
23 discussing the possibility that chemical reactions might occur in the stack and restating  
24 Asarco's position that accurate tests could be conducted at the existing sampling sites" and  
25 the EPA then issued the challenged decision but "made no response to Cahill's letter" in  
26 its decision).

27 Nevertheless, on the merits, Dr. Emerman's declaration does not establish a  
28 likelihood that the Forest Service acted arbitrarily and capriciously. Resolution Copper's

1 brief succinctly identifies the various flaws in the Tribe’s arguments regarding Dr.  
2 Emerman’s opinions and the Court agrees with that analysis. For example, “[t]he FEIS  
3 exhaustively analyzed various alternatives for the tailings facility. The FEIS and the draft  
4 ROD explain why the Forest Service selected Skunk Camp, located off Forest Service  
5 Land: it is ‘the most remote location’ and ‘offers the best ability to control seepage and  
6 protect water quality, has the least visibility, and is located in an area with little recreation  
7 use.’ . . . The FEIS [also] devotes an entire 51-page section to tailings and pipeline safety  
8 that addresses all of Dr. Emerman’s concerns. The agency undertook an exhaustive and  
9 collaborative process to assess the inherent risks in the tailings designs and a range of  
10 breach scenarios.” (*San Carlos*, Doc. 116 at 32.) Furthermore, although “Dr. Emerman  
11 states that he would have relied more heavily on a different analytical method that  
12 estimated the pipeline failure risk to be higher, 0.62 incidents per 1,000 miles,” this merely  
13 reflects that “one engineer disagreed with other engineers about the best way to evaluate  
14 the risk of pipeline failures” and “[b]oth *Seven County* and long-time NEPA precedents  
15 unambiguously teach that this Court should decline to interject itself into disputes about  
16 technical details—reached after a painstaking process fully described in the FEIS—and  
17 should instead defer to the agency’s well-reasoned analysis.” (*Id.* at 33.) And again,  
18 although Dr. Emerman raises criticisms regarding “the Forest Service’s methodology for  
19 modeling the risk of tailings dam failure, its selection of tailings dam engineering criteria,  
20 and its alleged failure to consider international standards for tailings dam locations,” “[t]he  
21 Forest Service addressed these engineering minutiae in detail in the FEIS and its supporting  
22 analyses, explaining how the agency exercised its judgment and referencing a massive  
23 library of technical documents supporting that judgment. Among these are a  
24 comprehensive breach (*i.e.*, total failure) analysis for each of the Project alternatives.  
25 These are again simply instances of one engineer disagreeing with others. They supply no  
26 basis to find the FEIS arbitrary and capricious . . . .” (*Id.*)

27 In reaching this conclusion, the Court does not mean to diminish the gravity of the  
28 concerns raised by Dr. Emerman. Among other things, Dr. Emerman contends that the

1 actual failure rate for tailings pipelines “is 21 times the annual failure rate estimated in the  
2 FEIS” (*San Carlos*, Doc. 109-6 at 10); that, as a result, “tailings pipeline failure should be  
3 regarded as an expected outcome for the Resolution Copper project” (*id.* at 12); that “a  
4 great deal of toxic tailings and water could be released before the pipeline is shut down  
5 upon detecting that a leak has occurred” (*id.* at 14); that “the failure of a concentrate  
6 pipeline is an expected outcome of the Resolution Copper project” (*id.* at 16); that the cost  
7 of performing Dr. Emerman’s preferred form of dam breach analysis would have been  
8 quite low, ranging from \$10,000 to \$35,000 (*id.* at 18, 23); that “the Skunk Camp site might  
9 not even be suitable for a tailings storage facility” due to flaws in the Forest Service’s  
10 analysis of its foundation (*id.* at 26-27); and that “the tailings dam (outer embankment) of  
11 the tailings storage facility at the Skunk Camp site (Alternative 6) will be a source of  
12 uncontrolled acid mine drainage into the underlying aquifer and downstream waterways”  
13 (*id.* at 36). It is difficult to read Dr. Emerman’s report without developing a sense of  
14 unease. Even so, the Forest Service was aware of his criticisms and provided extensive,  
15 reasoned analysis to justify its conclusions. “Black-letter administrative law instructs that  
16 when an agency makes those kinds of speculative assessments or predictive or scientific  
17 judgments, and decides what qualifies as significant or feasible or the like, a reviewing  
18 court must be at its ‘most deferential.’” *Seven County Infrastructure Coalition*, 145 S. Ct.  
19 at 1512. “Courts should afford substantial deference and should not micromanage those  
20 agency choices so long as they fall within a broad zone of reasonableness.” *Id.* at 1513.  
21 Courts must resist the urge to “fly-speck” the agency’s analysis and “act[] as a type of  
22 omnipotent scientist.” *Audubon Society of Portland*, 240 F.4th at 984.

23 **f. Lack Of Supplemental EIS**

24 The Tribe’s second NEPA argument is that because the FEIS included new  
25 “substantive” modeling and analysis that did not appear in the 2021 version of the EIS,  
26 “the Forest Service was required to issue a supplemental DEIS for public comment.” (*San*  
27 *Carlos*, Doc. 105 at 22.) In support, the Tribe proffers a declaration from Dr. James Wells.  
28 (*San Carlos*, Doc. 109-7 at 2-6.) Among other things, Dr. Wells asserts that “[t]he new

1 information that should have been published for public comment in a supplemental DEIS  
2 includes nine reports totaling thousands of pages on issues related to the Skunk Camp  
3 tailings storage facility (‘TSF’) site, stability analyses, aquifer testing, seismic hazard  
4 analyses, water quality and level analyses, TSF seepage analyses, groundwater flow  
5 models, site investigation summaries, and conceptual hydrogeological models.” (*Id.* at 4  
6 ¶ 5.) Enclosed as an attachment to Dr. Wells’s declaration is a 24-page report from Dr.  
7 Wells. (*Id.* at 7-30.) In that report, Dr. Wells opines that the NEPA implementing  
8 regulations at 40 C.F.R. § 1502.9 provide the foundation for his “professional opinion that  
9 [the Forest Service] had no discretion under NEPA regulations and should have published  
10 a Supplemental Draft EIS because there were significant new circumstances or information  
11 relevant to environmental concerns bearing on the proposed action.” (*Id.* at 11-12.)

12 As a threshold matter, Dr. Wells is not qualified to opine on legal issues, such as  
13 when NEPA’s implementing regulations require the issuance of a draft EIS. As a further  
14 threshold matter, Dr. Wells fails to acknowledge that the regulation on which he bases his  
15 impermissible legal opinion was rescinded in February 2025, several months before the  
16 FEIS’s publication. (*San Carlos*, Doc. 105-9 at 54 [FEIS page 9: “In January 2025,  
17 Executive Order 14154 was issued, directing the CEQ to propose rescinding CEQ’s NEPA  
18 regulations found at 40 CFR 1500 et. seq. In February 2025, CEQ published an interim  
19 final rule removing CEQ regulations from the Code of Federal Regulations.”].)

20 Yet even assuming the rescinded regulation still applied at the time of the FEIS’s  
21 publication,<sup>15</sup> the Tribe has not established a likelihood of success on this claim. “[T]he  
22 standard that governs an agency’s decision whether to prepare a supplemental EIS . . . [is]  
23 that an agency should apply a ‘rule of reason’ . . . . [A]n agency need not supplement an  
24 EIS every time new information comes to light after the EIS is finalized. To require  
25 otherwise would render agency decisionmaking intractable, always awaiting updated  
26 information only to find the new information outdated by the time a decision is made.”

27 \_\_\_\_\_  
28 <sup>15</sup> The Tribe argues in its reply that the rescinded regulation remained applicable based  
on a memo issued by the President’s chief of staff. (*San Carlos*, Doc. 119 at 16 n.7.) For  
the reasons outlined above, it is unnecessary to resolve this issue.

1 *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 373 (1980). “If an agency had to file a  
2 supplemental draft EA and repeat the public comment process every time it makes any . . .  
3 modifications, the NEPA review process would never end . . .” *Earth Island Inst. V. U.S.*  
4 *Forest Serv.*, 87 F.4th 1054, 1067 (9th Cir. 2023).

5 The now-rescinded 40 C.F.R. § 1502.9(d) provided that an agency “shall prepare  
6 supplements to either draft or final environmental impact statements if a major Federal  
7 action is incomplete or ongoing, and . . . [t]here are substantial new circumstances or  
8 information about the significance of adverse effects that bear on the analysis.” *Id.* “The  
9 “supplement requirement is triggered by ‘new circumstances’ when the underlying *project*  
10 significantly changes.” *Greer Coal., Inc. v. U.S. Forest Serv.*, 470 F. App’x 630, 633 (9th  
11 Cir. 2012). And “[w]hether new information is sufficiently significant to necessitate an  
12 SEIS turns on the value of the new information to the still pending decisionmaking  
13 process.” *Protect Our Cmty’s Found. v. Lacounte*, 939 F.3d 1029, 1040 (9th Cir. 2019)  
14 (cleaned up). By the Tribe’s own account, that standard was not satisfied here—the Tribe  
15 contends the “added content” was merely included in an “attempt[] to shore up glaring  
16 deficiencies in the now-withdrawn EIS that the Forest Service published in 2021.” (*San*  
17 *Carlos*, Doc. 105 at 3.) Particularly in light of the deferential standard that applies in this  
18 context—“Courts must uphold an agency determination that a supplemental EIS is not  
19 required if that determination is not arbitrary and capricious,” *Or. Natural Res. Council v.*  
20 *Lyng*, 882 F.2d 1417, 1422 (9th Cir. 1989)—the Tribe is unlikely to succeed on this claim.  
21 *Cf. Protect Our Cmty’s Found.*, 939 F.3d at 1040-41 (“We agree with the district court that  
22 the new information is not significant because it merely confirmed concerns that the 2011  
23 EIS already articulated and considered.”) (cleaned up).

24 **g. Acid Rock Drainage And Associated Errors**

25 The Tribe’s third NEPA argument is that “the FEIS erroneously concludes there  
26 would be no acid rock drainage during mine operation” and also “underestimates  
27 groundwater impacts downstream of the tailings storage facility,” which errors render the  
28 “selection of the Skunk Camp action alternative . . . arbitrary and capricious.” (*San Carlos*,

1 Doc. 105 at 22-23.) In support, the Tribe once again relies on the declaration of Dr. Wells.  
2 (*Id.*) The Federal Defendants move to strike Dr. Wells’s declaration and the Tribe defends  
3 it. (*San Carlos*, Docs. 115, 120.)

4 The threshold analysis regarding the admissibility of Dr. Wells’s declaration mirrors  
5 the analysis regarding Dr. Emerman’s declaration. Although one of the obvious purposes  
6 of Dr. Wells’s declaration is to substantively attack the Forest Service’s conclusions, Dr.  
7 Wells was personally involved in Forest Service’s analytical process. (*San Carlos*, Doc.  
8 114 at 28 n.14 [Federal Defendants’ acknowledgement that “Dr. Wells on behalf of the San  
9 Carlos Apache Tribe” was one of the “38 participants” who formed the “workgroups” that  
10 contributed to the Forest Service’s “water analysis”]; *San Carlos*, Doc. 116 at 25  
11 [Resolution Copper’s acknowledgement that “[t]he FEIS process also included two  
12 working groups formed to evaluate water concerns” and “[t]ribal consultant James Wells  
13 participated extensively in both”].) Thus, at least some aspects of Dr. Wells’s declaration  
14 can be viewed as being offered for the permissible purpose of identifying the opinions and  
15 information that were before the Forest Service at the time it made the challenged decision  
16 (which may be helpful in determining whether the agency failed to consider the relevant  
17 factors and properly explained its decision).

18 Nevertheless, on the merits, Dr. Wells’s declaration does not establish a likelihood  
19 that the Forest Service acted arbitrarily and capriciously. The Federal Defendants’ brief  
20 persuasively explains why, and the Court agrees with that analysis: “Dr. Wells’s criticism  
21 of the Forest Service’s conclusions related to the risks of acid rock drainage . . . second-  
22 guesses the Forest Service’s scientific and technical analysis to which this Court must  
23 defer. The FEIS analyzed the likelihood that oxygen would penetrate the tailings, causing  
24 a risk of acid rock drainage, disclosed uncertainties in the modeling related to this issue,  
25 and assessed the reasonableness of various assumptions. The Forest Service therefore gave  
26 a hard look to the likely effects . . . .” (*San Carlos*, Doc. 114 at 32-33, citations omitted.)

27 Just as with Dr. Emerman, the Court does not mean to diminish the seriousness of  
28 the concerns raised by Dr. Wells. Among other things, Dr. Wells contends that “it is highly

1 irregular (from a policy as well as scientific perspective) that water quality impacts from  
2 the various alternatives would be addressed using different methodologies” (*San Carlos*,  
3 Doc. 109-7 at 13); that the Forest Service “ask[ed] too much of a single groundwater  
4 model” and although “it is a great technical challenge to construct a groundwater model of  
5 this size and complexity, . . . ‘best we can do’ is not an adequate answer if the calibration  
6 issues render the model unreliable for its intended purpose” (*id.* at 15-16); that the Forest  
7 Service “is giving the public a false sense that it understands the future groundwater  
8 impacts from this project . . . when, in reality, the uncertainties in the groundwater modeling  
9 are often too large for the modeling results to be considered reliable at that scale” (*id.* at  
10 17); and that “the FEIS fails to take a hard look at one of the most important environmental  
11 issues facing virtually any hard-rock mine: acid rock drainage,” as its “conclusions on this  
12 issue are illogical and unsupported by reliable scientific analysis” (*id.* at 18). Again, these  
13 are alarming criticisms, but “when an agency makes those kinds of speculative assessments  
14 or predictive or scientific judgments, and decides what qualifies as significant or feasible  
15 or the like, a reviewing court must be at its ‘most deferential.’” *Seven County*  
16 *Infrastructure Coalition*, 145 S. Ct. at 1512. Courts must resist the urge to “fly-speck” the  
17 agency’s analysis and “act[] as a type of omnipotent scientist.” *Audubon Society of*  
18 *Portland*, 240 F.4th at 984.

19 **h. Failure To Address The Tribe’s Hydrological Concerns**

20 The Tribe’s fourth NEPA argument is that the FEIS “fails to address the  
21 hydrological impacts that the Tribe raised in its comment of December 23, 2019, related to  
22 the regional subsidence that would result from groundwater depletion and the effects on  
23 the precipitation and groundwater flows that would follow.” (*San Carlos*, Doc. 105 at 23.)

24 The Tribe is unlikely to succeed on this claim because it is belied by the record. The  
25 FEIS expressly acknowledges and addresses the hydrology concerns that were raised by  
26 the Tribe. (*San Carlos*, Doc. 114-1 at 42 [FEIS page 437: “During the re-initiation of  
27 Tribal consultation in 2021–2022, concerns were raised by the San Carlos Apache Tribe  
28 about indirect impacts to Tribal water resources in the Cutter Basin caused by Resolution

1 Copper dewatering around the East Plant Site, as well as long-term changes in regional  
2 groundwater from block-caving. The concern raised was not that drawdown from the  
3 Resolution Copper Project would directly impact the Cutter Basin, but that drawdown from  
4 the Resolution Copper Project would impact regional water supplies, which might then  
5 result in water users replacing lost water resources with additional pumping in the Cutter  
6 Basin. In response to these comments, the Forest Service conducted an analysis of these  
7 potential indirect effects (Garrett 2023b), summarized below.”]; *id.* at 237 [FEIS page R-  
8 356: “Comment response: WT30, Hydrologic connection to San Carlos Apache  
9 Reservation. . . . After the January 2021 publication of the Rescinded FEIS, we received  
10 further insights into the concerns raised by the San Carlos Apache Tribe with respect to  
11 water impacts. We understand that the concern is not of direct drawdown impacts but of  
12 the potential for cascading regional effects to cause greater groundwater use near Tribal  
13 lands. An analysis of this potential has now been added to section 3.7.1 of the FEIS.”].)

### 14 3. Summary As To NEPA Claims

15 It is unlikely that Plaintiffs will be able to survive all of the jurisdictional and  
16 threshold challenges that Defendants have raised to their NEPA claims. Plaintiffs are also  
17 unlikely to prevail on the merits of their NEPA claims.

### 18 C. **Consultation Claims**

#### 19 1. Threshold Issues

#### 20 a. **Standing/Redressability**

21 The Tribe will likely be able establish standing/redressability in relation to his  
22 consultation claims. An order vacating the FEIS pending additional consultation would, at  
23 a minimum, postpone the land exchange and thus create more time for members of the  
24 Tribe to continue using Oak Flat in its current, unspoiled form for religious purposes and  
25 ceremonies. As discussed in relation to Plaintiffs’ NEPA claims, the Ninth Circuit has  
26 indicated that the temporary cessation of a planned development so an agency can comply  
27 with its procedural obligations, which will in turn lead to the temporary cessation of the  
28 challenger’s asserted injuries arising from the planned development, may be enough to

1 establish the relaxed showing of redressability that is required in the APA context. *W.*  
2 *Watersheds Project*, 921 F.3d at 1148. The Ninth Circuit has also indicated that  
3 establishing redressability is not an onerous task in the context of consultation claims under  
4 NHPA seeking injunctive relief. *Ctr. for Biological Diversity*, 868 F.3d at 826  
5 (“Redressability . . . is a more relevant difference when comparing declaratory and  
6 injunctive relief because redressability depends on the relief envisioned. Here, CBD seeks  
7 injunctive relief via an order that the Government not undertake any activities in  
8 furtherance of the FRF project . . . [and] rescind any such permits or approvals already  
9 granted, until it complies with section 402 of the NHPA. The grant of injunctive relief in  
10 this case will result in (1) an adequate NHPA Section 402 process with (2) some likelihood  
11 of protecting CBD’s interests. Courts often exercise power under the APA to grant  
12 injunctive relief analogous to the halt that CBD requests. Accordingly, CBD has satisfied  
13 the requirement of redressability.”) (cleaned up).

14 **b. Implicit Preclusion Of Judicial Review**

15 Defendants’ “implicit preclusion” argument fails in relation to the Tribe’s  
16 consultation claims. SALECA does not expressly preclude judicial review and a strong  
17 presumption exists in favor of judicial review. *Bowen*, 476 U.S. at 670-72; *KOLA, Inc.*,  
18 882 F.2d at 363. The statutory features that Defendants emphasize are too ambiguous to  
19 overcome this presumption, particularly given SALECA’s express requirement that the  
20 Forest Service “engage in government-to-government consultation with affected Indian  
21 tribes concerning issues of concern to the affected Indian tribes related to the land  
22 exchange” and then “consult with Resolution Copper” to “seek to find mutually acceptable  
23 measures to . . . address the concerns of the affected Indian tribes; and . . . minimize the  
24 adverse effects on the affected Indian tribes resulting from mining and related activities on  
25 the Federal land conveyed to Resolution Copper under this section.” 16 U.S.C.  
26 § 539p(c)(3). Additionally, SALECA does not even mention NHPA, an omission that is  
27 difficult to reconcile with the idea that Congress clearly and unambiguously intended to  
28 preclude judicial review of NHPA claims related to the land exchange.



1 to the company, which prompted the company to begin construction activities. *Id.* at 1197-  
2 98. In response, various tribal and environmental organizations filed a lawsuit and sought  
3 a preliminary injunction, claiming among other things “that the Department violated the  
4 NHPA by authorizing Project construction to begin in the San Pedro Valley before  
5 completing its NHPA obligations.” *Id.* at 1198. The district court denied the request for  
6 injunctive relief and dismissed the lawsuit but the Ninth Circuit reversed the dismissal  
7 order. The court identified one of the “key issue[s]” as “whether the LNTPs constitute  
8 final agency actions.” *Id.* at 1200. As for the first element of *Bennett*’s finality test, the  
9 court concluded that “the LNTPs mark the consummation of the agency’s decisionmaking  
10 process about whether there are historic properties present in the San Pedro Valley” and  
11 “also represent the agency’s final determination that construction will not restrict  
12 subsequent mitigation measures to protect historic properties, as such a determination was  
13 a prerequisite to authorizing construction under the PA.” *Id.* at 1201 (cleaned up). As for  
14 the second element of *Bennett*’s finality test, the court concluded that “[t]he LNTPs also  
15 determine ‘rights’” because, “[m]ost importantly, they expressly grant SunZia the right to  
16 begin construction in the San Pedro Valley.” *Id.* Finally, the court rejected the defendants’  
17 argument “that the ROD is the only final agency action relevant here,” explaining that “the  
18 ROD could not have marked the consummation of the Department’s NHPA process under  
19 the PA; that process was incomplete when the ROD was issued.” *Id.* “In sum, we hold  
20 that the LNTPs constitute final agency actions because they represent the Department’s  
21 final decision that the PA requirements had been satisfied, and that [the company] could  
22 therefore begin construction in the San Pedro Valley.” *Id.* at 1201-02.

23 Although the parallels between the two cases are not exact, *Tohono O’odham Nation*  
24 makes it likely the Tribe will be able to establish the finality element of its consultation  
25 claims. The analysis as to the second finality element is straightforward—just as the  
26 LNTPs in *Tohono O’odham Nation* determined rights because they served as the  
27 prerequisite for construction of the transmission line to begin, the FEIS determines rights  
28 and causes legal consequences to flow because it serves as the triggering event for the land

1 exchange.

2 The more complicated question is whether the FEIS marks the consummation of the  
3 Forest Service’s consultation obligations under SALECA and NHPA in the same way that  
4 the LNTPs in *Tohono O’odham Nation* marked the consummation of BLM’s consultation  
5 obligations. According to the Federal Defendants, the answer is no: “[T]hose limited  
6 notices to proceed are not analogous to the FEIS and Draft ROD here. The limited notices  
7 to proceed ‘expressly’ authorized construction to commence. Here, the FEIS describes and  
8 analyzes the consultation that occurred, and the Draft ROD identifies the decisions that the  
9 Forest Service will make—but *has not yet made*—with respect to mitigation measures.  
10 Thus, neither document is a final agency action with respect to the NHPA.” (*San Carlos*,  
11 Doc. 93 at 13.)

12 As explained in earlier portions of this order, the Court agrees with Defendants that  
13 in the *NEPA* context, the Forest Service has likely not yet made any final discretionary  
14 decisions and won’t do so until it issues the ROD. But for *consultation* purposes, the  
15 analysis is somewhat different. Although it’s possible that comments and objections to the  
16 DROD will prompt the Forest Service to revisit its proposed determinations and, perhaps,  
17 engage in additional consultation, it’s also possible that no further consultation will occur.  
18 It can’t be overlooked that the government’s stated reason for rescinding the previous EIS  
19 in March 2021 was that it had “concluded that additional time is necessary to fully  
20 understand concerns raised by Tribes and the public and the project’s impacts to these  
21 important resources and ensures the agency’s compliance with federal law,” and thus “it  
22 directed the Forest Service to take appropriate steps to re-initiate consultation.” (*San*  
23 *Carlos*, Doc. 36-1 ¶ 6, cleaned up.) The reissuance of the FEIS in June 2025 is a sign that  
24 the government believes it has now satisfied those obligations. To that end, the FEIS  
25 expressly states that the consultation process under § 106 of NHPA has now been  
26 completed. (*San Carlos*, Doc. 106-3 at 171 [FEIS page 1000: “In accordance with 36 CFR  
27 800.7(c)(4), the Secretary of Agriculture delivered a written response to the ACHP on April  
28 17, 2025, and that response concluded the Section 106 process for this undertaking.”]. *See*

1 *also San Carlos*, Doc. 82-15 [Secretary of Agriculture’s letter to ACHP].)

2 Given this backdrop, and acknowledging that the issue is not free from doubt, the  
3 Court concludes that the Tribe will likely be able to establish the “final agency action”  
4 element of its consultation claims.

5 **d. No Agency Discretion**

6 The Court is unpersuaded by Defendants’ “no agency discretion” arguments as  
7 applied to the Tribe’s consultation claims. The Forest Service possesses discretion  
8 regarding its consultation obligations, both with respect to how to fulfill them and in  
9 determining when they have been satisfied. Additionally, as noted in relation to Plaintiffs’  
10 NEPA claims, Defendants’ counterarguments conflate the substance of the Tribe’s  
11 consultation claims with the remedy the Tribe seeks.

12 **e. Vacatur As A Remedy**

13 Earlier portions of this order explain why Defendants’ arguments regarding the  
14 permissibility of vacatur as a remedy do not stand as an obstacle to preliminary injunctive  
15 relief on Plaintiffs’ appraisal and NEPA claims. The same is true with respect to the Tribe’s  
16 consultation claims. Even assuming that Defendants’ cited NEPA cases apply in this  
17 context, they counsel against vacatur where, unlike here, the underlying project has already  
18 begun and actions have already been undertaken in reliance on the agency’s challenged  
19 decision.

20 **2. Merits**

21 **a. Tribal Consultation**

22 “The NHPA involves a series of measures designed to encourage preservation of  
23 sites and structures of historic, architectural, or cultural significance.” *San Carlos Apache*  
24 *Tribe*, 417 F.3d at 1093-94 (cleaned up). For instance, “[s]ection 106 [of NHPA] requires  
25 that federal agencies take into account the effect of their undertakings on any district, site,  
26 building, structure, or object that is included in or eligible for inclusion in the National  
27 Register.” *Id.* at 1094 (cleaned up). “If a proposed undertaking will have an effect on  
28 historic properties to which Indian tribes attach religious and cultural significance, [NHPA]

1 requires the federal agency to consult with the affected tribes before proceeding.” *Navajo*  
2 *Nation v. U.S. Forest Serv.*, 479 F.3d 1024, 1059 (9th Cir. 2007), *overruled on other*  
3 *grounds*, 535 F.3d 1058 (9th Cir. 2008). *See also* 36 C.F.R. § 800.2(c)(2)(ii) (“[T]he  
4 agency official [must] consult with any Indian tribe . . . that attaches religious and cultural  
5 significance to historic properties that may be affected by an undertaking.”). Under the  
6 relevant regulations, “[c]onsultation means the process of seeking, discussing, and  
7 considering the views of other participants, and, where feasible, seeking agreement with  
8 them regarding matters arising in the section 106 process.” 36 C.F.R. § 800.16(f). “The  
9 agency official shall ensure that consultation . . . provides the Indian tribe . . . a reasonable  
10 opportunity to identify its concerns about historic properties, advise on the identification  
11 and evaluation of historic properties, including those of traditional religious and cultural  
12 importance, articulate its views on the undertaking’s effects on such properties, and  
13 participate in the resolution of adverse effects.” 36 C.F.R. § 800(c)(2)(A).

14 SALECA also requires “government-to-government consultation with affected  
15 Indian tribes concerning issues of concern to the affected Indian tribes related to the land  
16 exchange.” 16 U.S.C. § 539p(c)(3)(A). It further requires the government to “consult with  
17 Resolution Copper and seek to find mutually acceptable measures to . . . address the  
18 concerns of the affected Indian tribes” and “minimize the adverse effects on the affected  
19 Indian tribes resulting from mining and related activities” on federal land included in the  
20 exchange. *Id.* § 539p(c)(3)(B). This “government-to-government consultation” and  
21 “minimize adverse effects” language mirrors the governing NHPA regulations. 36 C.F.R.  
22 § 800.2(c)(ii)(C) (“Consultation with an Indian tribe must recognize the government-to-  
23 government relationship between the Federal Government and Indian tribes.”); *id.*  
24 § 800.6(a) (“The agency official shall consult with . . . other consulting parties, including  
25 Indian tribes . . . to develop and evaluate alternatives or modifications to the undertaking  
26 that could avoid, minimize or mitigate adverse effects on historic properties.”) In light of  
27 this parallel language, and because the Tribe has not argued that SALECA’s requirements  
28

1 are materially different from NHPA's requirements,<sup>16</sup> the Court will assume without  
2 deciding that these requirements are the same.

3 i. Relevant Facts

4 Appendix S of the FEIS suggests that discussions between the federal government  
5 and members of the Tribe regarding the land exchange began in 2003. (*San Carlos*, Doc.  
6 109-2 at 405.) That year, Forest Service staff members met with members of the Western  
7 Apache Coalition, including the Tribe, to “discuss[] proposed land exchange and request[]  
8 Apache assistance in reviewing a CR survey.” (*Id.*) In the two decades that followed,  
9 Resolution Copper asserts, without contradiction, that “the Forest Service conducted . . .  
10 434 documented consultations with the San Carlos Apache Tribe.” (*San Carlos*, Doc. 116  
11 at 41.)<sup>17</sup> The following non-exhaustive list of tribal contacts is instructive:

12 Between 2003 and 2008, the Forest Service sent several official letters to the San  
13 Carlos Apache “Tribal Chair[]” and cultural staff; hosted a “formal” meeting<sup>18</sup> with “San  
14 Carlos Cultural Staff”; and hosted an “[i]nformal meeting with the Western Apache  
15 coalition.” (*San Carlos*, Doc. 109-2 at 405-07.)

16 Between 2008 and 2015, the Forest Service continued communications with the  
17 Tribe through various emails and letters, as well as through formal and informal meetings.  
18 (*Id.* at 406-21.) Some of the topics discussed during this period included the possibility of  
19 a “pre-feasibility” or “baseline” study regarding the proposed mine (*id.* at 406-07, 415) and  
20 the possibility of an “[e]thnographic” study of the region (*id.* at 413). Following these  
21 discussions, the Tribe executed a Memorandum of Understanding (“MOU”) with the  
22 Forest Service outlining “[p]rotocols for San Carlos participation in  
23 Ethnohistoric/Ethnographic Study.” (*Id.* at 414.)

24 <sup>16</sup> One possible exception is that SALECA explicitly requires the FEIS to incorporate  
25 discussion of adverse effects on cultural resources and possible mitigation measures.  
16 U.S.C. § 539p(c)(9)(C).

26 <sup>17</sup> The Tribe does not dispute this number. Instead, as discussed in more detail below,  
27 the Tribe disputes whether certain consultations qualify as meaningful and/or  
“government-to-government” consultations.

28 <sup>18</sup> Appendix S notes that meetings are designated as “formal” when a “Forest Service  
line officer [is] present.” (*See, e.g., San Carlos*, Doc. 109-2 at 406.)

1 In 2015, the “Ethnographic and Ethnohistoric Study” was completed (*id.* at 416),  
2 including a literature review of “archival and existing literature” as well as “oral interviews  
3 and field visits with Tribal members to collect oral history and knowledge” (*San Carlos*,  
4 Doc. 106-3 at 44). Members of the Tribe (as well as members of other tribes)  
5 “accompanied research staff to important places throughout the study area and shared  
6 information about those places.” (*Id.*) As a result of that study and “Tribal Monitor  
7 surveys,” the Forest Service recorded “594 special interest areas,” including various  
8 “cultural resources” and “natural resources.” (*Id.* at 50.) In addition, “the ethnographic  
9 study identified seven places of traditional and cultural importance within the direct  
10 analysis area.” (*Id.* at 51.)

11 Between 2015 and 2016, the Forest Service continued communications with the  
12 Tribe concerning the proposed “Baseline” project for “Hydrologic and Geotechnical Data  
13 Gathering Activities” and an accompanying environmental assessment of that proposed  
14 plan (“EA”). (*San Carlos*, Doc. 109-2 at 415, 417-25.) Following publication of the EA,  
15 the Tribe brought a lawsuit that challenged, *inter alia*, the sufficiency of the tribal  
16 consultations. *Concerned Citizens*, 279 F. Supp. 3d at 939-42. Judge Campbell rejected  
17 that challenge, explaining:

18 Consultation is a two-way street. The administrative record makes clear that  
19 the Forest Service made numerous and substantial efforts to consult, while  
20 the Tribe made no meaningful effort to engage with the Forest Service. Were  
21 the Court to find that an agency had not satisfied the NHPA’s consultation  
22 requirements simply because no actual consultation occurred, a tribe could  
23 block any undertaking by refusing to cooperate. The NHPA does not  
24 guarantee actual meaningful consultation, only that the tribe will have a  
25 reasonable opportunity for such consultation. The Tribe had such an  
26 opportunity here.

27 *Id.* at 942.

28 In August 2015, following the passage of SALECA, the Forest Service sent an  
“[o]fficial letter” to the Tribe’s “[l]eaders and cultural staff” inviting them “to consult about  
the NDAA Land exchange.” (*San Carlos*, Doc. 109-2 at 419.)

1 From 2015 to 2021, the Forest Service communicated regularly with tribal members  
2 through emails and letters. (*See generally id.* at 418-87.) The Forest service also hosted  
3 formal and informal meetings with “[t]ribal leaders and staff.” (*See, e.g., id.* at 427.) The  
4 topics discussed during this period included: the possibility of a MOU between the Tribe  
5 and the Forest Service (*id.* at 423); the forthcoming EIS (*id.* at 427); the proposed “mining  
6 technique[] and water analyses” (*id.* at 443); and the development of a proposed  
7 Programmatic Agreement (“PA”) to guide further consultations (*id.* at 435).

8 In November 2018, the Forest Service made a “Field Trip” in the “Camp Verde  
9 area” along with members of the Tribe and other tribes to examine “potential groves.” (*Id.*  
10 at 438.) And in May 2019, tribal monitors led a tour of the proposed Skunk Camp tailings  
11 storage alternative, which tour included members of the Tribe. (*Id.* at 442.)

12 Between 2018 and 2021, the Forest Service began including the Tribe in the  
13 development of a PA (*id.* at 434-82) with the aim of guiding future tribal consultations and  
14 outlining various mitigation measures concerning the land exchange and mine. (*San*  
15 *Carlos*, Doc. 109-5 at 4-5 [ACHP comments: “Consultation has included the . . . San Carlos  
16 Apache Tribe . . . and resulted in the development of a draft PA that would provide a  
17 mechanism for further identification and evaluation of historic properties . . . as well as a  
18 broad array of measures to attempt to resolve identified adverse effects.”].) This process  
19 involved at least eight different versions of the PA, with the Forest Service soliciting  
20 comments and input from the Tribe (both in-person and via letter) concerning the  
21 successive drafts. (*See, e.g., San Carlos*, Doc. 109-2 at 475 [“San Carlos Apache Tribe . . .  
22 Provided comments on PA version 8.”]; *id.* at 479 [“Reply to San Carlos . . . comments on  
23 PA version 8.”].)

24 On November 22, 2019, the Forest Service met with the San Carlos Apache Tribal  
25 Council “during a special Tribal Council meeting.” (*San Carlos*, Doc. 116-2 at 42.) At  
26 the meeting, the Forest Service solicited comments on the Draft EIS (*id.*), and the parties  
27 discussed the “[u]pdated status of EIS process, answered questions” and heard a  
28 “presentation by San Carlos water consultant.” (*San Carlos*, Doc. 109-2 at 455. *See also*

1 *San Carlos*, Doc. 106-3 at 169 [“A seventh meeting, with the San Carlos Apache Tribe,  
2 took place on November 22, 2019.”].)

3 Between 2019 and 2021, the parties continued exchanging emails and letters and  
4 participating in meetings concerning many of the same topics outlined above. (*San Carlos*,  
5 Doc. 109-2 at 456-88.) During this period, the Tribe also began expressing concerns about  
6 the need for a supplemental EIS. (*Id.* at 481.)

7 On March 1, 2021, the Secretary of Agriculture directed the Forest Service to  
8 “rescind the FEIS and ROD” because “additional time [was] necessary to fully understand  
9 concerns raised by Tribes and the public and the project’s impacts to these important  
10 resources and ensure the agency’s compliance with federal law.” (Doc. 36 at 2.)

11 In September 2021, the Forest Service sent an email inviting the Tribe to participate  
12 in an October 2021 listening session to “re-initiate consultations.” (*San Carlos*, Doc. 109-  
13 2 at 488, 491.) On October 19, 2021, the listening session took place. (*Id.* at 491.)

14 Between 2021 and 2025, the Forest Service continued sending emails and letters to  
15 the Tribe, attempting to arrange meetings (*id.* at 488-510), and providing updates on topics  
16 such as “water quality documents” and continued “review of hydrology aspects of the RCM  
17 EIS” (*see, e.g., id.* at 494, 500). The Forest Service also continued its consultation efforts  
18 with the various other tribal parties. (*Id.* at 488-510.)

19 In November 2021, the Tribe’s Chairman (“Chairman Rambler”) “authorized his  
20 admin to set a telephone meeting with [Associate Deputy Chief] Gyant.” (*Id.* at 492.)

21 In December 2021, the Forest Service sent an email “[a]sk[ing] San Carlos Tribe to  
22 select date and time for meeting and provide topics they would like to discuss.” (*Id.* at  
23 493.)

24 On February 10, 2022, the Forest Service met with Chairman Rambler, as well as  
25 with the Tribe’s attorney general (“San Carlos AG”), at Oak Flat in a meeting marked in  
26 the FEIS as “CONFIDENTIAL.” (*Id.* at 495.) The next day, another meeting was held in  
27 Peridot, Arizona, to discuss “San Carlos’ concerns about the project and the FEIS” and  
28 other confidential topics. (*Id.*)

1 In March 2023, the “USDA Under Secretary Wilkes” and other Forest Service staff  
2 attended a tour of Oak Flat along with “[p]resentations by proponents for saving Oak Flat.”  
3 (*Id.* at 503.)

4 In April 2023, the Forest Service held another tribal listening session with multiple  
5 tribal members present, including members of the Tribe, and “[d]iscussed issues identified  
6 by Tribes and the status of the EIS.” (*Id.* at 504.)

7 In August 2023, Chairman Rambler sent a letter to the Forest Service “propos[ing]  
8 a MOU, a working group, and 6 topics to be discussed by the working group.” (*Id.* at 505.)

9 On May 15, 2024, after exchanging drafts of the MOU, the Forest Service met with  
10 the San Carlos Tribal Council in San Carlos, Arizona, to “[d]iscuss[] EIS and proposed  
11 consultation MOU.” (*Id.* at 507.)

12 On June 7, 2024, the Forest Service met virtually with the San Carlos AG and other  
13 tribal staff to continue discussions of the proposed MOU. (*Id.* at 509. *See also San Carlos*,  
14 *Doc. 119-2* [meeting agenda and transcript].) From the Tribe’s perspective, the meeting  
15 was insulting. (*San Carlos*, *Doc. 119* at 18 [ “[A] ‘transcript’ of that June 7, 2024, meeting  
16 . . . [demonstrates] that the Forest Service resisted even the most basic acknowledgements,  
17 including whether Oak Flat was part of the Tribe’s ancestral territory.”].)

18 In April 2025, the Secretary of Agriculture sent a letter to the Tribe “[c]onvey[ing]  
19 USDA decision to publish the FEIS and draft Record of Decision, and conclude NHPA  
20 Section 106 process.” (*San Carlos*, *Doc. 109-2* at 510.)

21 ii. Sufficiency Of Consultation

22 Two baseline principles guide the analysis of the Tribe’s challenge to the Forest  
23 Service’s compliance with its tribal consultation obligations under NHPA and SALECA.  
24 First, the obligation to engage in consultation is not the same thing as an obligation to reach  
25 an outcome that is acceptable from the perspective of the party being consulted. Section  
26 106 of NHPA is simply “a ‘stop, look, and listen’ provision.” *Muckleshoot Indian Tribe*  
27 *v. U.S. Forest Serv.*, 177 F.3d 800, 805 (9th Cir. 1999). It is “chiefly procedural in nature.”  
28 *Preservation Coalition, Inc. v. Pierce*, 667 F.2d 851, 859 (9th Cir. 1982). Second, as

1 discussed, because NHPA and SALECA do not create a private right of action, the Tribe's  
2 challenge to the Forest Service's compliance with the consultation obligations created by  
3 those statutes arises under the APA. *Tohono O'odham Nation*, 138 F.4th at 1200  
4 ("Plaintiffs bring their NHPA challenge under the APA."); *San Carlos*, 417 F.3d at 1093.  
5 The APA's arbitrary-and-capricious standard thus applies. *See, e.g., Morongo Band of*  
6 *Mission Indians v. F.A.A.*, 161 F.3d 569, 573 (9th Cir. 1998) ("Decisions regarding NHPA  
7 . . . [are] reviewed under the arbitrary and capricious standard."); *Western Watersheds*  
8 *Project v. McCullough*, 2023 WL 4557742, \*2 (9th Cir. 2023) ("The BLM's identification  
9 of tribes for consultation was not arbitrary or capricious and did not violate NHPA . . .").  
10 Under that "deferential" standard, the question is whether the Forest Service's consultation  
11 efforts fell "within a zone of reasonableness." *Prometheus Radio Project*, 592 U.S. at 423.

12 Applying those standards, the Tribe is unlikely to prevail on its tribal consultation  
13 challenges. As noted, the governing regulations only require the Forest Service to "seek[],  
14 discuss[], and consider[] the views" of the Tribe and "*where feasible*, seek[] agreement."  
15 36 C.F.R. § 800.16(f) (emphasis added). This requires the Forest Service to provide the  
16 Tribe "a *reasonable opportunity* to identify its concerns" and "articulate its views on the  
17 undertaking's effects on [affected] properties, and participate in the resolution of adverse  
18 effects." 36 C.F.R. § 800(c)(2)(iii) (emphasis added). The voluminous letters, emails, and  
19 meetings documented in the FEIS demonstrate that the Forest Service consistently sought  
20 the Tribe's input regarding the project over a period of more than two decades and provided  
21 many, many opportunities for the Tribe to participate in the decision-making process. Nor  
22 can it be ignored that the Tribe brought a previous challenge regarding the adequacy of the  
23 Forest Service's consultation efforts related to the land exchange, only for Judge Campbell  
24 to determine that those consultation efforts were sufficient, in part because the Tribe  
25 refused to engage in good faith. *Concerned Citizens*, 279 F. Supp. 3d at 941-42. Although  
26 the Tribe is dissatisfied with the outcome that ultimately resulted from the tribal  
27 consultation process, such dissatisfaction does not show the process itself was insufficient.  
28 *See, e.g., Te-Moak Tribe of Western Shoshone of Nevada v. U.S. Dept. of Interior*, 608 F.3d

1 592, 610 (9th Cir. 2010) (“In sum and as reflected in the record, the BLM has consulted  
2 with the Tribe regarding PCRIs within the project area for many years. In addition, the  
3 Tribe has made no showing that it would have provided new information had it been  
4 consulted again earlier in the Amendment’s approval process. We therefore conclude that  
5 the BLM did not violate its obligation to consult with the Tribe and thus did not violate the  
6 NHPA.”); *Navajo Nation*, 479 F.3d at 1060 (“[B]ecause of the extensive record of  
7 consultation undertaken by the Forest Service in this case, we agree with the district court  
8 that although the consultation process did not end with a decision the tribal leaders  
9 supported, this does not mean that the Forest Service’s consultation process was  
10 substantively and procedurally inadequate.”) (cleaned up).

11 The Tribe’s more specific objections do nothing to change this conclusion. First,  
12 the Tribe appears to argue that any tribal consultations that took place before the March  
13 2021 withdrawal of the initial EIS are irrelevant. (*San Carlos*, Doc. 105 at 23-24.) But the  
14 Ninth Circuit has rejected variants of this argument. *See, e.g., Te-Moak*, 608 F.3d at 608-  
15 10 (rejecting NHPA-based tribal consultation challenge in part due to “BLM’s previous  
16 consultation with the Tribe for the original HC/CUEP and other projects in the area” and  
17 emphasizing that those earlier consultation efforts took place “for many years”); *Summit*  
18 *Lake Paiute Tribe of Nev. v. U.S. Bureau of Land Mgmt.*, 496 F. App’x 712, 714-15 (9th  
19 Cir. 2012) (“The Tribe argues that BLM did not adequately consult with it regarding the  
20 proposed re-route, depriving it of its right to participate in the resolution of adverse effects  
21 as required by the regulations. *In addressing the adequacy of consultation, we consider*  
22 *both the consultation on the re-routing and the consultation that was conducted in*  
23 *connection with the initial approval of the project.* Indeed, it was BLM’s consultation with  
24 the Tribe, which started at least as early as January 2009, that led it to propose the re-route  
25 in the first place, and BLM conducted four site visits with the Tribe to try to ascertain the  
26 boundaries of the traditional cultural property. We hold that this process, taken as a whole,  
27 fulfilled BLM’s consultation obligation.”) (emphasis added) (cleaned up). As noted, Judge  
28 Campbell previously rejected a challenge to the adequacy of one component of those earlier

1 consultation efforts. *Concerned Citizens*, 279 F. Supp. 3d at 941-42.

2 Second, the Tribe argues for the first time in its reply brief that only consultations  
3 with the San Carlos Apache *Tribal Council* qualify as “government-to-government  
4 consultation.” (*San Carlos*, Doc. 119 at 17.)<sup>19</sup> The Tribe thus argues that many of the  
5 letters, phone calls, “listening sessions,” and other meetings identified in the FEIS, which  
6 involved communications with other San Carlos officials (including the San Carlos AG),  
7 do not count. (*Id.*) As an initial matter, this argument is likely forfeited because it was  
8 raised for the first time in a reply brief, *Zamani*, 491 F.3d at 997, and the Tribe did not cite  
9 any supporting authority in its reply. Moreover, given the interconnected nature of the  
10 voluminous tribal contacts described in the FEIS, which suggests the Tribal Council was  
11 kept apprised of the Forest Service’s consultation efforts with other tribal officials and  
12 representatives, it would be surprising if those consultation efforts were *irrelevant* for  
13 purposes of evaluating the adequacy of the Forest Service’s consultation efforts.<sup>20</sup>

14 In any case, the record establishes that the Forest Service’s 400+ consultations and  
15 communications with tribal representatives included two formal meetings, in November  
16 2019 and May 2024, with the Tribal Council (*San Carlos*, Doc. 109-2 at 258, 455, 507);  
17 additional formal meetings with individual members of the Tribal Council, such as the  
18 Vice-Chair (*id.* at 417); and a variety of efforts to schedule even more formal meetings  
19 with the Tribal Council (*see, e.g., id.* at 430) and/or meetings and phone calls with  
20 Chairman Rambler, the chairman of the Tribal Council (*see, e.g., id.* at 492, 503). It is  
21 difficult to see how such consultation efforts could be deemed inadequate under the

22 <sup>19</sup> The portion of the Tribe’s motion raising consultation-related challenges says  
23 nothing about the consultations being directed toward the wrong tribal representatives.  
(*San Carlos*, Doc. 105 at 23-24.)

24 <sup>20</sup> With that said, the Court has identified authority from outside the Ninth Circuit that  
25 may provide support for the Tribe’s position regarding which representatives matter for  
26 purposes of “government-to-government” consultation duties. *City of Phoenix, Ariz. v.*  
27 *Huerta*, 869 F.3d 963, 971 (D.C. Cir. 2017) (“[T]he FAA failed to fulfill these obligations  
28 because it consulted only low-level employees in the City’s Aviation Department, whom  
the City had never designated as its representatives. True, the City never informed the  
FAA that low-level Aviation Department employees were inadequate points of contact, but  
that is irrelevant. Neither statute nor regulation imposes a duty on local governments to  
affirmatively inform the agency of their chosen representatives. Just the opposite: the  
agency must ask local governments who their authorized representatives are.”).

1 relevant Ninth Circuit precedents. *Te-Moak*, 608 F.3d at 609 (9th Cir. 2010) (rejecting  
2 tribal consultation claim where “as reflected in the record, the BLM has consulted with the  
3 Tribe regarding PCRI within the project area for many years”); *Navajo Nation*, 479 F.3d  
4 at 1060 (rejecting tribal consultation claim in light “of the extensive record of consultation  
5 undertaken by the Forest Service in this case”). *See also Concerned Citizens*, 279 F. Supp.  
6 3d at 942 (“The administrative record makes clear that the Forest Service made numerous  
7 and substantial efforts to consult . . .”).

8 Third, the Tribe contends the formal May 2024 meeting between the Forest Service  
9 and the Tribal Council was not meaningful because “[a]t most, the Forest Service consulted  
10 with the San Carlos Council about the terms of a [MOU] to guide consultation that was  
11 never executed.” (*San Carlos*, Doc. 119 at 17.) But Chairman Rambler’s declaration does  
12 not support the assertion that the parties only discussed the MOU at the May 2024 meeting.  
13 (*San Carlos*, Doc. 89-5.) In that declaration, Chairman Rambler lists various “concerns  
14 that the Tribe expressed at the meeting,” which included, among other things, (1) concerns  
15 that the “EIS is deeply flawed,” (2) concerns about “[w]hether the Forest Service would  
16 fully assess the water needs and assess the viability of potential water sources,” and (3)  
17 concerns about “[w]hether the Forest Service would provide thorough written responses to  
18 BLM’s concerns.” (*Id.* ¶ 7.)

19 Fourth, to the extent the Tribe contends that various features of the parties’  
20 consultations (such as the fact that no MOU was ever finalized) show that the Forest  
21 Service acted in bad faith when carrying out its consultation duties, this claim is not  
22 supported by the law, *see Navajo Nation*, 479 F.3d at 1060 (“[a]lthough the consultation  
23 process did not end with a decision the tribal leaders supported, this does not mean that the  
24 Forest Service’s consultation process was substantively and procedurally inadequate”), or  
25 by the record. For example, the Tribe argues that “the Forest Service resisted even the  
26 most basic acknowledgements, including whether Oak Flat was part of the Tribe’s ancestral  
27 territory.” (*San Carlos*, Doc. 119 at 18.) To support this argument, the Tribe cites the June  
28 7, 2024 transcript of a virtual meeting between the Forest Service and certain tribal

1 representatives, including the San Carlos AG. (*San Carlos*, Doc. 119-2.) In that meeting,  
2 the Forest Service representative explained the decision to strike certain land  
3 acknowledgements from the proposed MOU: “[T]he concern of the Forest Service here  
4 was that . . . enumerating these facts might implicate some of the facts in the ongoing  
5 litigation regarding the land exchange.” (*Id.* at 27.) The Forest Service then asked if these  
6 acknowledgments could be characterized as “[t]he San Carlos’s perspective on these facts”  
7 and the tribal representatives pushed back, explaining that these acknowledgments were  
8 important for “establishing trust with the Council and the tribe.” (*Id.* at 27-28.) As a  
9 possible compromise, the Tribe proposed “putting a 408 label”<sup>21</sup> on the proposed  
10 acknowledgments and the Forest Service asked if the Tribe would be “willing to draft up  
11 some of that . . . 408 language.” (*Id.* at 28.) Rather than evincing bad faith, this exchange  
12 demonstrates—at least to the Court’s eye—the enormous difficulties the parties faced in  
13 finding common ground given the specter of ongoing litigation and the Tribe’s vehement  
14 opposition to the land exchange.

15 Fifth, the Tribe argues the Forest Service’s consultation efforts were insufficient  
16 because they were not “responsive to the issues raised by the Tribe” and therefore not  
17 “meaningful.” (*San Carlos*, Doc. 119 at 17-18.) However, the record demonstrates that  
18 the Forest Service responded to many of the Tribe’s concerns. For example, during the  
19 early phases of tribal consultation, the Tribe participated extensively in the development  
20 of a PA to identify possible mitigation measures concerning the land exchange. Although  
21 “the PA was never executed,” some of the “mitigation measures identified in the PA . . .  
22 will now be implemented through the final ROD and special use permit for use of Forest  
23 Service lands.” (*San Carlos*, Doc. 106-3 at 171 [FEIS page 1000].) Among the mitigation  
24 measures addressed in the original PA and incorporated into the DROD are “preparation  
25 of an archeological [historic properties treatment plan]”; an “archeological research  
26 design” that will be “completed prior to the proposed ground-disturbing activities in the  
27 GPO project areas”; a plan to mitigate adverse “visual, atmospheric, auditory, and

28 <sup>21</sup> Presumably this refers to Federal Rule of Evidence 408.

1 cumulative effects”; and an “archeological database fund”<sup>22</sup> “[i]n recognition of the  
2 substantial loss of cultural resources and historic properties on State Trust Lands.” (*San*  
3 *Carlos*, Doc. 116-2 at 49-50 [DROD pages 38-39].)

4 In addition, following the May 2024 meeting between the Forest Service and the  
5 Tribal Council, a Forest Service representative, Troy Heithecker, sent a letter to Chairman  
6 Rambler assuring him that “issues raised through consultation have been considered and  
7 carefully analyzed.” (*San Carlos*, Doc. 85-8 at 2.) Heithecker went on to address some of  
8 the concerns raised in the May 2024 meeting, explaining that “[b]ased on the information  
9 obtained through our consultation efforts and reviews of the withdrawn FEIS, the Forest  
10 Service is not aware of any information that would require a complete reinitiation of the  
11 [FEIS] process.” (*Id.* at 3.) Heithecker also explained that, in response to tribal concerns  
12 about the mine’s impact on water, the Forest Service conducted “additional analysis of  
13 potential indirect impacts to groundwater in the area known as the Cutter Basin” and  
14 “engaged a Bureau of Land Management (BLM) hydrological review team to review the  
15 water analysis section of the FEIS.” (*Id.*) Heithecker concluded: “While we have  
16 determined that further discussion on some issues is complete, we recognize that  
17 compliance with Congress’s mandate to complete the SALECA land exchange cannot be  
18 reconciled with Tribal concerns and understand there are still issues that allow for further  
19 engagement. I am committed to continued collaborative dialogue. Therefore, I am inviting  
20 you to reach out directly to me to engage on this proposed project in formal consultation at  
21 a time and place convenient for you and your leadership.” (*Id.* at 4.)

22 More substantively, it appears the Forest Service incorporated a more thorough  
23 response to the Tribe’s concerns regarding water at page 437 of the FEIS:

24 During the re-initiation of Tribal consultation in 2021-2022, concerns were  
25 raised by the San Carlos Apache Tribe about indirect impacts to Tribal water  
26 resources in the Cutter Basin caused by Resolution Copper dewatering  
around the East Plant Site, as well as long-term changes in regional

27 \_\_\_\_\_  
28 <sup>22</sup> The Forest Service Acknowledges that it “no longer has the authority to require this  
measure” but that the measure is enforceable through “Letter Agreements” with Resolution  
“dated January 12, 2021.” (*San Carlos*, Doc. 116-2 at 50.)

1 groundwater from block-caving. . . . In response to these comments, the  
2 Forest Service Conducted an analysis of these potential indirect effects . . . .

3 (*San Carlos*, Doc. 106-2 at 68. *See also AMRC*, Doc. 93-1 at 235 [FEIS page R-356: “After  
4 the January 2021 publication of the Rescinded FEIS, we received further insights into the  
5 concerns raised by the San Carlos Apache Tribe with respect to water impacts. We  
6 understand that the concern is not of direct drawdown impacts but of the potential for  
7 cascading regional effects to cause greater groundwater use near Tribal lands. An analysis  
8 of this potential has now been added to section 3.7.1 of the FEIS.”].)

9 **b. ACHP Consultation**

10 In addition to challenging the sufficiency of the Forest Service’s tribal consultation  
11 efforts, the Tribe also argues that the Forest Service failed to adequately consult ACHP.  
12 As part of the NHPA consultation process, the Forest Service must “afford [ACHP] a  
13 reasonable opportunity to comment with regard to the undertaking.” *Tohono O’odham*  
14 *Nation*, 138 F.4th at 1193 (quoting 54 U.S.C. § 306108) (cleaned up). After identifying  
15 potential adverse effects on a historic property, “[t]he agency official shall notify [ACHP]<sup>23</sup>  
16 of the adverse effect” and “invite [ACHP] to participate in the consultation” “to seek ways  
17 to avoid, minimize or mitigate the adverse effects.” 36 C.F.R. § 800.6(a)(1), (b)(2).<sup>24</sup> For  
18 “certain complex project situations or multiple undertakings,” ACHP “and the agency  
19 official may negotiate a programmatic agreement to govern the implementation of a  
20 particular program or the resolution of adverse effects.” *Id.* § 800.14(b).

21 “After consulting . . . the agency official, the [State Historic Preservation  
22 Officer/Tribal Historic Preservation Officer], or [ACHP] may determine that further  
23 consultation will not be productive and terminate consultation. Any party that terminates  
24 consultation shall notify the other consulting parties and provide them the reasons for  
25

26 <sup>23</sup> The regulations refer to ACHP as the “Council.” 36 C.F.R. § 800.16(g) (“*Council*  
27 means the Advisory Council on Historic Preservation or a Council member or employee  
designated to act for the Council.”).

28 <sup>24</sup> Alternatively, ACHP has the option to enter “into the section 106 process . . . [w]hen  
the Council determines that its involvement is necessary.” 36 C.F.R. § 800.2(b).

1 terminating in writing.” *Id.* § 807(a). “If [ACHP] terminates consultation, the [ACHP]  
2 shall notify the agency official . . . of the termination” and “transmit its comments within  
3 45 days.” *Id.* § 800.7(a)(4), (c)(2). The head of the agency, in turn, “shall take into account  
4 [ACHP’s] comments in reaching a final decision on the undertaking,” including  
5 “[p]reparing a summary of the decision that contains the rationale for the decision and  
6 evidence of consideration of [ACHP’s] comments” and “providing [the summary] to  
7 [ACHP] prior to approval of the undertaking.” *Id.* § 800.7(c)(4).

8 i. ACHP Consultations Generally

9 The evidence bearing on the issue of ACHP consultations is as follows. “On  
10 December 7, 2017, the [Forest Service] notified the ACHP of its finding of adverse effect”  
11 regarding the proposed mine and the land exchange, “and on December 21, 2017, the  
12 ACHP informed the [Forest Service] that it would participate in the consultation.” (*San*  
13 *Carlos*, Doc. 109-5 at 4.) Over the next four years, ACHP “participated in the Section 106  
14 consultation to seek ways to avoid, minimize, or mitigate adverse effects to historic  
15 properties that would result from this undertaking.” (*San Carlos* 109-3 at 2.) ACHP also  
16 assisted in coordinating consultations with interested parties and “the development of a  
17 draft PA that would provide a mechanism of further identification and evaluation of historic  
18 properties.” (*San Carlos*, Doc. 109-5 at 4-5.) As discussed in the preceding section, the  
19 PA went through numerous iterations. Except for ACHP, all of the other required  
20 signatories signed the PA. (*San Carlos*, Doc. 82-15 at 1.)

21 On February 11, 2021, ACHP notified the Forest Service that “further consultation  
22 in this case would be unproductive and therefore, we are hereby terminating consultations  
23 pursuant to 36 CFR § 800.7(a)(4).” (*San Carlos*, Doc. 109-3 at 2.) ACHP reached this  
24 decision because “it [was] clear that the proposed undertaking would destroy significant  
25 historic properties, including the highly significant Oak Flat, and the measures in the PA  
26 [were] not sufficient to adequately resolve those adverse effects.” (*Id.*)

27 On March 29, 2021, 45 days later, ACHP transmitted its comments to the Secretary  
28 of Agriculture. (*San Carlos*, Doc. 109-5.)

1 On April 17, 2025, the Secretary of Agriculture responded to those comments in a  
2 five-page letter. (*San Carlos*, Doc. 82-15.) The Secretary addressed each of ACHP’s  
3 comments individually and explained how those comments informed the ultimate decision  
4 to publish the FEIS and the DROD. (*Id.*) More specifically, in response to ACHP’s  
5 comment that the Secretary “should work with the Administration and Congress to . . .  
6 amend or repeal [SALECA],” the Secretary explained that the USDA is prohibited by  
7 statute from engaging in lobbying activities. (*Id.* at 3.) As for ACHP’s recommendation  
8 to “use further discussions with Tribes and other stakeholders to develop and evaluate  
9 alternatives and further modifications to the undertaking,” the Secretary summarized the  
10 additional consultation efforts that took place following ACHP’s comments in 2021 and  
11 explained that the USDA hadn’t been able to identify better alternatives or permissible  
12 modifications under SALECA. (*Id.* at 3-4.) As for ACHP’s recommendation to “commit  
13 to carrying out mitigation measures in the proposed PA” even though the PA was never  
14 fully executed, the Secretary responded that the USDA “remained committed” to carrying  
15 out those mitigation measures that remained in its power. (*Id.* at 4.) The remaining three  
16 comments from ACHP concerned systematic changes the USDA should implement in  
17 future consultation efforts not involving Oak Flat. (*Id.* at 4-6.) The Secretary explained,  
18 in response, how the USDA would address those concerns moving forward. (*Id.*)

19 The Tribe argues these consultation efforts were inadequate because “[t]he Forest  
20 Service has not substantively addressed the comments ACHP offered when it terminated  
21 consultation or that it presented by letter on March 29, 2021.” (*San Carlos*, Doc. 105 at  
22 23.) The Tribe also faults the Secretary for “defend[ing] the 2021 FEIS, a position contrary  
23 to the Forest Service’s statements when it withdrew the 2021 FEIS.” (*Id.* at 24.)

24 There is little caselaw on this subject. What appears to be the most on-point case  
25 comes from the Third Circuit in *Concerned Citizens All., Inc. v. Slater*, 176 F.3d 686 (3d  
26 Cir. 1999). There, the plaintiff challenged a decision by the Federal Highway  
27 Administration (“FHWA”) to place a new bridge in a location that would send traffic  
28 through a nearby historic district. *Id.* at 690. As part of the challenge, the plaintiff argued

1 that FHWA failed to adequately defer to the ACHP’s preferred alternative route. *Id.* at  
2 695-97. The court rejected this argument, concluding that FHWA adequately considered  
3 ACHP’s input because (1) ACHP was heavily involved in the planning process, (2) FHWA  
4 hired a consultant recommended by ACHP, and (3) FHWA’s disagreement with ACHP  
5 was adequately justified and not arbitrary and capricious. *Id.* In short, the agency  
6 “demonstrate[d] that it ha[d] read and considered” ACHP’s comments and “gave the  
7 ACHP’s conclusion genuine attention.” *Id.* at 696. Here, too, the Secretary acknowledged  
8 ACHP’s concerns and recommendations and provided detailed, reasoned responses to  
9 them. ACHP was involved in the Forest Service’s consultation efforts early on, and the  
10 Secretary provided adequate justifications for its decision to publish the FEIS,  
11 notwithstanding ACHP’s comments.

12 As for the Tribe’s assertion that the Secretary’s response to ACHP’s comments was  
13 inadequate because the Secretary “defended the 2021 FEIS”—it’s not entirely clear what  
14 the Tribe is referring to. It seems this argument concerns the Secretary’s response to  
15 ACHP’s second comment that “USDA should use further discussions with Tribes and other  
16 stakeholders to develop and evaluate alternatives and further modifications to the  
17 undertaking . . . .” (*San Carlos*, Doc. 82-15 at 3.) In response, the Secretary stated that  
18 “USDA worked extensively with Tribes and other stakeholders to identify potential  
19 modifications and mitigations that might avoid adverse effects.” (*Id.*) The Secretary then  
20 stated that “[n]evertheless, in 2021, the Secretary of Agriculture ordered the re-initiation  
21 of consultation with Tribal nations after the [FEIS] was rescinded to redouble the agency’s  
22 efforts . . . . To date, additional consultations with the Tribes has not uncovered other  
23 potential mitigation or alternatives that would allow USDA to comply with the SALECA  
24 while avoiding adverse impacts to Tribal interests.” (*Id.*) Nothing in this passage is  
25 arbitrary or capricious—as discussed elsewhere in this order, the tribal consultation process  
26 was quite complicated due to the Tribe’s vehement, if understandable, opposition to the  
27 very concept of the land exchange.

28 ...



1 provisions of the APA because NFMA does not contain an express provision for judicial  
2 review.” *Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 960 (9th Cir.  
3 2005). As a result, the “final agency action” requirement again applies.

4 AMRC’s essential argument is that the Forest Service violated NFMA’s  
5 implementing regulations, which require any change to a forest plan to be preceded by a  
6 formal notice-and-comment process, by including changes to the Forest Plan in the FEIS  
7 and DROD without following such a process. But as discussed in relation to Plaintiffs’  
8 NEPA claims, the proposed changes to the Forest Plan discussed in the FEIS and DROD  
9 are just that—proposed changes. No final decisions or changes have been made yet. It  
10 follows that there has been no consummation of the agency’s decision-making process, as  
11 required to satisfy the first element of *Bennett*’s finality test.

## 12 2. Merits

13 Although the analysis could end there, the Court will also address the merits.  
14 According to AMRC, 36 C.F.R. Part 219 provides that any proposed amendment to a forest  
15 plan must be preceded by a period of public review, comment, and notice. (*AMRC*, Doc.  
16 87 at 27-29.) AMRC further contends that the FEIS “included, for the first time, a new  
17 proposal to substantially amend the Tonto National Forest Plan.” (*Id.*) It follows,  
18 according to AMRC, that “the agency’s decision to bypass public review and amend the  
19 Forest Plan . . . violates the substantive and procedural requirements of the NFMA.” (*Id.*)<sup>25</sup>

20 AMRC is unlikely to succeed on this claim. As background, NFMA provides the  
21 statutory framework for management of National Forest lands. Under NFMA, the Forest  
22 Service and Secretary of Agriculture must develop and maintain a forest plan for each unit  
23 of the National Forest System. 16 U.S.C. § 1604(a). “[T]he Forest Service implements  
24 each forest plan by approving or disapproving site-specific actions.” *N. Cascades*  
25 *Conservation Council v. United States Forest Serv.*, 2021 WL 8344155, \*5 (W.D. Wash.

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26 <sup>25</sup> AMRC also makes a passing assertion that the Forest Service’s challenged conduct  
27 violates FLPMA and NEPA (*AMRC*, Doc. 87 at 29), but AMRC does not develop this  
28 assertion in any depth or elaborate on this assertion in its reply brief. *Martinez-Serrano v.*  
*INS*, 94 F.3d 1256, 1259 (9th Cir. 1996) (“Issues raised in a brief that are not supported by  
argument are deemed abandoned.”).

1 2021), *report and recommendation adopted*, 2022 WL 1043930 (W.D. Wash. 2022). *See*  
2 *also* 16 U.S.C. § 1604(i) (“Resource plans and permits, contracts, and other instruments  
3 for the use and occupancy of National Forest System lands shall be consistent with the land  
4 management plans.”).

5 The Secretary of Agriculture is also required to “promulgate regulations . . . that set  
6 out the process for the development and revision of the land management plans.” 16 U.S.C.  
7 § 1604(g). The regulations create at least two possibilities for amending a forest plan.  
8 Under the first option, “the responsible official shall . . . [p]rovide opportunities for public  
9 participation as required in § 219.4 and public notification as required in § 219.16.” 36  
10 C.F.R. § 219.13(b)(2). Part 219.4, in turn, requires “[t]he responsible official” to “provide  
11 opportunities to the public for participating in the assessment process; developing a plan  
12 proposal; . . . [and] commenting on the proposal.” 36 C.F.R. § 219.4(a). Part 219.16  
13 requires “formal public notification” to “be provided . . . [t]o invite comments on a  
14 proposed plan, plan amendment, or plan revision, and associated environmental analysis”  
15 with the comment period lasting “at least 90 days” for a plan requiring a draft EIS. 36  
16 C.F.R. § 219.16(a)(2).

17 Meanwhile, the second option applies “when a plan amendment is approved in a  
18 decision document approving a project or activity and the amendment applies only to the  
19 project or activity,” in which case “the notification requirements of 36 CFR part 215 or  
20 part 218, subpart A, appl[y] instead.” 36 C.F.R. § 219.16(b). *See also* 36 C.F.R.  
21 § 219.59(b) (“When a plan amendment is approved in a decision document approving a  
22 project or activity and the amendment applies only to the project or activity, the  
23 administrative review process of 36 CFR part 215 or part 218, subpart A, applies instead  
24 of the objection process established in this subpart.”). Part 218 creates a modified  
25 “objection” process where public participation takes place contemporaneously with  
26 publication of a final EIS: “[T]he responsible official must promptly make available the  
27 final EIS . . . and a [DROD] to those who have requested the documents or are eligible to  
28 file an objection” and publish “legal notice of the opportunity to object” “in the applicable

1 newspaper of record.” 36 C.F.R. § 218.7(b)-(c). “Written objections, including any  
2 attachments, must be filed with the reviewing officer within 45 days following the  
3 publication date of the legal notice.” 36 C.F.R. § 218.26(a). “The responsible official may  
4 not sign a ROD . . . until the reviewing officer has responded in writing to all pending  
5 objections.” 36 C.F.R. § 218.12(a).

6 Here, it fell within the “broad zone of reasonableness,” *Seven County Infrastructure*  
7 *Coalition*, 145 S. Ct. at 1513, for the Forest Service to conclude that the proposed  
8 amendments to the Forest Plan set forth in the FEIS are project-specific—indeed, all of  
9 those changes will flow from the land exchange and Resolution Copper’s plan to begin  
10 mining for copper. And if the proposed changes are project-specific, this means that “the  
11 notification requirements of 36 CFR part 215 or part 218, subpart A, appl[y] instead” of  
12 the more formal requirements described elsewhere in Part 219. 36 C.F.R. § 219.16(b).  
13 Consistent with the requirements set forth in Part 218,<sup>26</sup> the Forest Service published the  
14 requisite legal notice in the *Arizona Capitol Times* on June 20, 2025. *Copper Project &*  
15 *Land Exchange and Project-Specific Forest Plan Amendment, Legal Notice*, *Ariz. Capitol*  
16 *Times*, (June 20, 2025), [https://www.resolutionmineeis.us/sites/default/files/feis/arizona-](https://www.resolutionmineeis.us/sites/default/files/feis/arizona-capitol-times-resolution-feis-drod-20250620.pdf)  
17 [capitol-times-resolution-feis-drod-20250620.pdf](https://www.resolutionmineeis.us/sites/default/files/feis/arizona-capitol-times-resolution-feis-drod-20250620.pdf). The *Arizona Capitol Times* is the  
18 applicable “newspaper of record” as defined in 36 C.F.R. § 218.2. *Newspapers Used for*  
19 *Publication of Legal Notices in the Southwestern Region, Which Includes Arizona, New*  
20 *Mexico, and Parts of Oklahoma and Texas*, 89 Fed. Reg. 92,888, 92,889 (Nov. 25, 2024)  
21 (“Notices for Availability for Comments, Decisions, and Objections by Forest Supervisor,  
22 Cave Creek Ranger District, and Mesa Ranger District are published in:—‘Arizona Capitol  
23 Times’, in Phoenix, Arizona.”). Following this publication, the 45-day “objection” period  
24 began, and there is no suggestion—let alone evidence—that concerned parties who met the  
25 requirements of 36 C.F.R. § 218.5 were denied an opportunity to participate in that

26  
27  
28 <sup>26</sup> In 2014, the Forest Service repealed 36 C.F.R. Part 215. *Notice, Comment, and Appeal Procedures for National Forest System Projects and Activities and Project-Level Predecisional Administrative Review Process*, 79 Fed. Reg. 44,291 (July 31, 2014).

1 process.<sup>27</sup>

2 AMRC also contends that the FEIS and proposed Forest Plan amendments fail to  
3 “explain the agency’s dramatic departure from its policies and regulation from 2021 to  
4 2025.” (AMRC, Doc. 87 at 38.) Charitably construed, this argument invokes the so-called  
5 “change-in-position doctrine.” *Food & Drug Admin. v. Wages & White Lion Invs., L.L.C.*,  
6 145 S. Ct. 898, 918 (2025). This doctrine “asks two questions”: *first*, “whether an agency  
7 changed existing policy”; and *second*, whether “the agency display[ed] awareness that it is  
8 changing position and offer[ed] good reasons for the new policy.” *Id.* (internal quotation  
9 marks omitted). There is “no basis in the [APA] or in our opinions for a requirement that  
10 all agency change be subjected to more searching review.” *FCC v. Fox Television Stations*,  
11 556 U.S. 502, 514 (2009). Instead, the ordinary arbitrary-and-capricious standard applies,  
12 so long as the agency accounts for “factual findings that contradict those which underlay  
13 its prior policy” or “serious reliance interests” that “its prior policy has engendered.” *Id.*  
14 at 515.

15 AMRC’s argument appears twofold. First, AMRC argues that proposing  
16 “numerous Plan Amendments” was “a complete reversal from the 2021 DROD, which  
17 specifically stated that: ‘I find that the authorized uses do not require an amendment to the  
18 forest plan.’” (AMRC, Doc. 87 at 28.) Second, AMRC appears to argue that the proposed  
19 amendments themselves are a “dramatic departure” from pre-existing agency policy  
20 because “the eliminated Plan requirements were enacted to protect valuable resources such  
21 as the recognized Traditional Cultural Property of Ga’an Canyon . . . as well as wildlife  
22 migration routes.” (*Id.* at 28-29.) This second argument is premature because the proposed  
23 Forest Plan amendments have not yet been adopted. As for the first argument, it’s unclear  
24 that the Forest Service was required to give any justification for its change in position  
25 because neither the 2021 FEIS nor the 2021 DROD represented official agency policy.  
26 *Sierra Club v. Bureau of Land Mgmt.*, 786 F.3d 1219, 1226 (9th Cir. 2015) (“Admittedly,

27  
28 <sup>27</sup> In fact, counsel for AMRC represented at oral argument that AMRC filed objections  
to the proposed Forest Plan amendments on Monday, August 4, 2025.

1 the BLM initially indicated that consultation might be required for the Wind Project.  
2 However, the BLM’s evolving analysis was not a change in a published regulation or  
3 official policy.”).<sup>28</sup> Further, it’s unclear that the proposal to amend the Forest Plan  
4 represents a true change in position. As the Forest Service points out, “[a]s early as March  
5 2016 the Forest Service informed the public that a Forest Plan amendment could be  
6 needed.” U.S. Dep’t of Agric., *Request for Comments and Notice of Public Scoping on*  
7 *Resolution Copper Project and Land Exchange EIS* (Mar. 2016),  
8 [https://www.resolutionmineeis.us/documents/usfs-tonto-legal-notice-scoping-schedule-](https://www.resolutionmineeis.us/documents/usfs-tonto-legal-notice-scoping-schedule-201603)  
9 201603 (“The Tonto National Forest (TNF) is preparing an environmental impact  
10 statement (EIS) to evaluate and disclose the potential environmental effects from: . . .  
11 amendments to the Tonto National Forest Land and Resource Management Plan.”). The  
12 2021 EIS also reiterated that:

13 An initial review of the consistency of the proposed GPO with the forest plan  
14 indicates that approval of the proposed GPO would result in conditions that  
15 are inconsistent with the forest plan for some alternatives. If needed, an  
16 amendment to the forest plan would address the necessary changes to  
relevant standards and guidelines for managing visual quality and recreation  
opportunities, as determined by the project’s record of decision.

17 (AMRC, Doc. 9-1 at 9.) In this way, the proposal in the FEIS to amend the Forest Plan  
18 appears consistent with the agency’s pre-existing position that such amendments might be  
19 needed.

20 Regardless, the Forest Service demonstrated awareness that it was changing position  
21 by noting that “[t]he [Forest Plan] was revised and implemented in December 2023”  
22 (AMRC, Doc. 87-2 at 59) and including an additional 36 pages of analysis in the FEIS  
23 specifically devoted to discussion of the new proposed amendments (*id.* at 59-95). *See*  
24

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25 <sup>28</sup> The Supreme Court has likewise expressed doubt that the “change-in-position”  
26 doctrine applies to informal and non-binding agency action, although it declined to decide  
27 the issue definitively. *Food & Drug Admin.*, 145 S. Ct. at 918 n.5 (“We have traditionally  
28 applied the change-in-position doctrine when an agency shifts from a position expressed  
in a more formal setting. True, we have on at least one occasion applied the doctrine when  
an agency altered a position first stated in a policy statement. But as we explained in that  
case, the policy statement instituted ‘a standardized review process’ that ‘effectively’  
resembled adjudication.”).

1 *also Sierra Club*, 786 F.3d at 1226 (“[T]he BLM’s change of view regarding the need for  
2 consultation was adequately justified after further investigation demonstrated the  
3 feasibility of private access. Thus, the BLM did not act arbitrarily or capriciously when it  
4 changed its unofficial position regarding consultation.”) (citation omitted).

5 3. Summary As To NFMA Claims

6 It is unlikely that AMRC will be able to establish final agency action in relation to  
7 its NFMA claims. Furthermore, AMRC is unlikely to prevail on the merits.

8 II. The Second *Winter* Factor

9 The second *Winter* factor asks whether the movant is “likely to suffer irreparable  
10 harm in the absence of preliminary relief.” *Winter*, 555 U.S. at 20. The Tribe contends it  
11 will suffer several “textbook examples of irreparable harm” once the land exchange occurs,  
12 including that “the Tribe and its members would lose access to all but 50 of Oak Flat’s  
13 2,422 acres, and even the limited access that remains would be temporary and subject to  
14 Resolution’s unilateral choice.” (*San Carlos*, Doc. 105 at 24-25.) AMRC reiterates these  
15 arguments, emphasizing that “the immediate loss of access for cultural and spiritual  
16 purposes for [tribal members] is profound,” and contends that “the Exchange will also  
17 immediately and permanently [sic] eliminate the legal ability of members of the other  
18 Plaintiff groups to access and use these lands for hiking, rock climbing, appreciating and  
19 viewing of wildlife, plants, and waters on these lands, camping, and other recreational and  
20 aesthetic purposes.” (*AMRC*, Doc. 87 at 5.)

21 The Federal Defendants disagree, arguing that Plaintiffs cannot make the required  
22 showing because the exchange will not “cut off access to *all* the exchanged lands.”  
23 (*AMRC*, Doc. 93 at 48, emphasis added.) The Federal Defendants emphasize that, under  
24 SALECA, Resolution Copper is required to “provide access to the surface of the Oak Flat  
25 Campground to members of the public, including Indian tribes, to the maximum extent  
26 practicable, consistent with health and safety requirements, until such time as the operation  
27 of the mine precludes continued public access for safety reasons, as determined by  
28 Resolution Copper.” (*San Carlos*, Doc. 114 at 48, quoting 16 U.S.C. § 539p(i)(3).)

1 Meanwhile, Resolution Copper argues that Plaintiffs will still have access to all of the  
2 federal land being exchanged following the transfer, because Resolution Copper has  
3 “committed to maintaining current recreational access to the federal land for at least the  
4 next ten years”; that “there will be no impact at all to the surface of the federal land being  
5 conveyed to Resolution in the exchange until 2026”; and that any future “changes in the  
6 land’s status are the ultimate result mandated by Congress.” (*AMRC*, Doc. 94 at 47-49.)

7 Plaintiffs have the better of these arguments. SALECA itself only guarantees  
8 access—and even then, only temporary access that may be rescinded “for safety reasons,  
9 as determined by Resolution Copper,” 16 U.S.C. § 539p(i)(3)—to the Oak Flat  
10 *Campground*, which is a small fraction of overall area to be exchanged. As for Resolution  
11 Copper’s contention that it will provide recreational access to all of exchanged land for at  
12 least 10 years, although the Court accepts and has no reason to question the sincerity of  
13 this contention, it does not appear to be legally enforceable. (*San Carlos*, Doc. 116-9  
14 ¶¶ 13-14 [declaration from Victoria Peacey, Resolution Copper’s president and general  
15 manager: “[S]ubsidence of the ground surface is anticipated to occur beginning  
16 approximately 6 years after initiation of mining—or approximately 16 years. Access to  
17 Oak Flat will remain largely unchanged for this period of 16 years. . . . Until that time,  
18 existing access to the entire Oak Flat Parcel will remain largely unchanged. The Oak Flat  
19 campground will remain open to the public and available for tribal events and  
20 ceremonies.”].) Thus, it appears that nothing would stop Resolution Copper from  
21 reconsidering this proposed grant of access following the land exchange. *See also Apache*  
22 *Stronghold v. United States*, 2025 WL 1360694, \*6 (D. Ariz. 2025) (“Nothing about  
23 Resolution Copper’s broad ‘commitment’ to public access is legally binding; furthermore,  
24 even their statutorily mandated duty to maintain access to the Oak Flat Campground is (1)  
25 contingent on their *discretionary* determination that access is ‘practicable’ and ‘consistent  
26 with health and safety requirements,’ and (2) fails to account for the fact that the Oak Flat  
27 Campground represents only a tiny portion of Oak Flat itself.”) (citations omitted).

28 More important, it is undisputed that once the land exchange is completed,

1 Resolution Copper will begin changing Oak Flat in irreversible ways. Resolution Copper  
2 plans to begin “construction of initial data-gathering tunnels through the resource and  
3 beneath Oak Flat” following the land exchange. (*San Carlos*, Doc. 116-9 ¶ 13.) Although  
4 this activity may not immediately cause any perceptible change to the surface of the land,  
5 it is still an irreversible change. Furthermore, Resolution Copper will begin engaging in  
6 surface disturbances of Oak Flat in 2026. (*San Carlos*, Doc. 116-9 ¶ 15 [“It will be  
7 months—that is, not until 2026—before Resolution creates new surface disturbance of the  
8 Oak Flat parcel. . . . This will be for the purpose of creation of four new drill pads (soil  
9 clearings), two access roads (soil/gravel), equipment storage (soil clearing), and a medical  
10 evacuation area (soil clearing).”].) Although Resolution Copper contends these activities  
11 will only affect a small fraction of Oak Flat, they are still surface disturbances, and they  
12 will begin before the case would otherwise reach a conclusion—there is no way this  
13 complicated case, in which the administrative record is not yet even filed, would proceed  
14 past summary judgment by the start of 2026.

15 It follows that absent injunctive relief, tribal members are at most guaranteed to  
16 have access to some portion of Oak Flat for some period of time following the land  
17 exchange. That access, moreover, will be to land that will immediately start being laced  
18 with subterranean data-gathering tunnels and then, beginning in 2026, will start undergoing  
19 surface disturbances. Continued access to such land is not meaningless, but to a tribal  
20 member who sincerely “believe[s] the destruction of Oak Flat will close off a portal to the  
21 Creator forever and will completely devastate the Western Apaches’ spiritual lifeblood,”  
22 *Apache Stronghold*, 145 S. Ct. at 1480-82 (Gorsuch, J., dissenting from the denial of  
23 certiorari), it is easy to see why being given limited access to the post-land exchange  
24 version of Oak Flat is no substitute for, and thus does not remediate the irreparable injury  
25 flowing from the lack of unlimited access to, Oak Flat in its current form.

### 26 III. The Third And Fourth Winter Factors

27 When, as here, “a government agency is a party,” “the final two injunction factors—  
28 the balance of equities and the public interest—merge.” *Assurance Wireless*, 100 F.4th at

1 1031.

2 There is no doubt that an array of equities and public-interest considerations favor  
3 Plaintiffs, for the reasons discussed above in relation to the second *Winter* factor and for  
4 the additional reasons that various judges have observed during the course of the *Apache*  
5 *Stronghold* proceedings. *Apache Stronghold v. United States*, 2021 WL 12295173, \*7 (9th  
6 Cir. 2021) (“[A]ll citizens have a stake in upholding the Constitution. This is particularly  
7 so where religious rights are at issue, because protecting religious liberty and conscience  
8 is obviously in the public interest.”) (Bumatay, J., dissenting) (cleaned up); *Apache*  
9 *Stronghold v. United States*, 2025 WL 1360694, \*5-9 (D. Ariz. 2025) (Logan, J., granting  
10 stay pending resolution of Apache Stronghold’s petition for certiorari).

11 However, there are also weighty equities and public-interest considerations on the  
12 other side of the ledger. As discussed at the outset of this order, SALECA represents a  
13 considered choice by the political branches to prioritize the significant potential benefits  
14 that Resolution Copper’s mining activity is expected to generate—not only boosting  
15 Arizona’s economy to the tune of over \$1 billion per year but also promoting critical  
16 national security interests—at the expense of potential devastation to the religious beliefs  
17 and practices of the Tribe and to the environment. These are profound tradeoffs, and the  
18 litigation in this case has made clear that many affected parties strongly disagree with the  
19 choice that Congress made. Even so, the presence of a preliminary injunction request does  
20 not give the Court license, under the guise of the evaluating the third and fourth *Winter*  
21 factors, to second-guess the political branches’ wisdom in deciding how to balance those  
22 considerations. *Oakland Cannabis Buyers’ Co-op.*, 532 U.S. at 497 (“[A] court sitting in  
23 equity cannot ignore the judgment of Congress, deliberately expressed in legislation. . . .  
24 Courts of equity cannot, in their discretion, reject the balance that Congress has struck in a  
25 statute.”) (cleaned up).<sup>29</sup> It follows that there is a public interest in allowing the land

26 <sup>29</sup> In a related vein, the Court is unpersuaded by Plaintiffs’ attempts to downplay the  
27 national security ramifications of securing a domestic supply of copper. (*San Carlos*, Doc.  
28 119 at 20; *AMRC*, Doc. 97 at 20.) Regardless of the location of the smelting facilities, the  
political branches have determined that it is “imperative for our national security that the  
United States take immediate action to facilitate domestic mineral production to the  
maximum possible extent.” Exec. Order No. 14241, § 1, 90 Fed. Reg. 13,673 (Mar. 20,

1 exchange to occur *even when* all of its profound tradeoffs, and the corresponding equities  
2 and public-interest considerations that favor Plaintiffs, are factored into the calculus.

3 AMRC also contends the third and fourth *Winter* factors cut in Plaintiffs’ favor  
4 because they will suffer immediate, irreparable harm if the land exchange is not enjoined,  
5 whereas “a temporary injunction would not stop Resolution from mining a single ounce of  
6 copper should the transfer be upheld.” (*AMRC*, Doc. 97 at 20, cleaned up.) Although this  
7 line of reasoning might have more force in a different case, *see, e.g., League of Wilderness*  
8 *Defenders/Blue Mountains Biodiversity Project v. Connaughton*, 752 F.3d 755, 765 (9th  
9 Cir. 2014) (“[T]he balance of equities tips toward the LOWD plaintiffs, because the harms  
10 they face are permanent, while the intervenors face temporary delay.”), it ignores the  
11 unique features of SALECA. First, as noted, Congress specified that it wished for the land  
12 exchange to occur within 60 days of the issuance of the FEIS and clarified that “[t]he  
13 purpose of this section is to authorize, direct, facilitate, *and expedite* the exchange of land  
14 between Resolution Copper and the United States.” 16 U.S.C. § 539p(a) (emphasis added).  
15 It follows that there is a public interest in allowing the land exchange to proceed on the  
16 expedited timetable Congress contemplated, as opposed to delaying it for years pending  
17 the resolution of these lawsuits. Second, given the indications by the political branches  
18 that securing access to a domestic supply of copper has significant national security  
19 ramifications—a determination this Court possesses neither the competence nor  
20 prerogative to second-guess—the Court is unwilling to conclude that a multi-year delay in  
21 pursuing that objective can be disregarded as insignificant.

22 Given these considerations, the third and fourth *Winter* factors do not tip sharply in  
23 Plaintiffs’ favor.

#### 24 IV. Conclusion As To The *Winter* Factors

25 Because Plaintiffs have not established a likelihood of success or even serious  
26 questions going to the merits of any of their claims, their requests for a preliminary  
27 injunction must be denied. *Critchfield*, 137 F.4th at 922 (“In the absence of serious

28 \_\_\_\_\_  
2025).

1 questions going to the merits, the court need not consider the other factors.”) (cleaned up).

2 Moreover, even if Plaintiffs had established serious questions going to the merits, a  
3 preliminary injunction could only “issue if the balance of hardships tips sharply in the  
4 plaintiff’s favor, and the other two *Winter* factors are satisfied.” *Shell Offshore, Inc.*, 709  
5 F.3d at 1291. As discussed in Part III above, those requirements are not satisfied here.

6 V. Request For Injunction Pending Appeal

7 During oral argument, Plaintiffs asked the Court to issue an injunction pending  
8 appeal if it denied their preliminary injunction requests.

9 It is understandable why Plaintiffs made this request. Plaintiffs intend to seek  
10 emergency injunctive relief from the Ninth Circuit should their motions be denied, and  
11 under Rule 8(a)(1)(C) of the Federal Rules of Appellate Procedure, “[a] party must  
12 ordinarily move first in the district court for . . . an order suspending, modifying, restoring,  
13 or granting an injunction while an appeal is pending.” *Id.* Rule 62(d) of the Federal Rules  
14 of Civil Procedure, in turn, provides “[w]hile an appeal is pending from an interlocutory  
15 order or final judgment that . . . refuses . . . an injunction, the court may . . . grant an  
16 injunction on terms for bond or other terms that secure the opposing party’s rights.” *Id.*  
17 (emphasis added). As things currently stand, no “appeal is pending,” so Plaintiffs’ request  
18 appears to be premature.

19 Nevertheless, in an abundance of caution, the Court clarifies that it would deny a  
20 request for an injunction pending appeal even if such a request were properly before it.<sup>30</sup>  
21 Although “Rule 62(d) contemplates that there will be situations where district courts can  
22 grant injunctions pending appeal even after denying a preliminary injunction,” “the fact  
23 that a court previously found that a preliminary injunction was not warranted should carry  
24 significant weight, so the circumstances must be of unusual magnitude to justify a district

25 <sup>30</sup> With that said, the Court notes that it previously issued an order—which remains in  
26 effect—that “[t]he federal defendants are enjoined from conveying the federal land  
27 described in § 3003 of NDAA until August 19, 2025.” (*San Carlos*, Doc. 99 at 20.) Thus,  
28 as a practical matter, Plaintiffs will have a period of time following the issuance of this  
order to attempt to obtain emergency injunctive relief from the Ninth Circuit. The Court  
endeavored to finalize and issue this order by August 15, 2025, which was no small task,  
so that Plaintiffs would have that period of time.

1 court granting an injunction pending appeal after denying a preliminary injunction. Only  
2 when the legal question raised is particularly important and serious questions going to the  
3 merits have been raised should a district court consider such a course of action.” *NetChoice*  
4 *v. Bonta*, 761 F. Supp. 3d 1232, 1235-36 (N.D. Cal. 2025) (cleaned up). “This can occur  
5 when the trial court is charting a new and unexplored ground by ruling on an admittedly  
6 difficult legal question, and when the equities of the case suggest that the status quo should  
7 be maintained.” *Id.* (cleaned up).

8 Although these cases are undoubtedly important, of an unusual magnitude, and raise  
9 an array of difficult and unsettled legal questions, those difficult and unsettled legal  
10 questions relate to the jurisdictional and threshold issues raised by Defendants. In contrast,  
11 the *merits* of Plaintiffs’ claims do not, in the Court’s view, present close or serious  
12 questions, especially in light of *Seven County Infrastructure Coalition*. The Court  
13 therefore cannot find, in good conscience, that the Rule 62(d) standard is satisfied.

14 This conclusion is also informed by two other considerations. First, it is notable  
15 that the Supreme Court recently denied certiorari in *Apache Stronghold* despite the  
16 presence of claims that, in the Court’s view, present much closer and more serious merits  
17 questions than the substantive claims at issue here. Second, as discussed in Part III above,  
18 SALECA evinces a public interest in expediting the land exchange and allowing it to occur  
19 on the timetable that Congress contemplated.

20 Accordingly,

21 **IT IS ORDERED** that:

- 22 1. San Carlos’s motion for preliminary injunction (*San Carlos*, Doc. 105) is  
23 **denied**.
- 24 2. AMRC’s motion for preliminary injunction (*AMRC*, Doc. 87) is **denied**.
- 25 3. Federal Defendants’ motion to strike (*San Carlos*, Doc. 115) is **denied**.

26 Dated this 15th day of August, 2025.

27  
28  
  
\_\_\_\_\_  
Dominic W. Lanza  
United States District Judge

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*Attorneys for Plaintiffs*

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF ARIZONA  
PHOENIX DIVISION**

GOUYEN BROWN LOPEZ, *et al.*,

Plaintiffs,

v.

UNITED STATES OF AMERICA, *et al.*,

Defendants,

and

RESOLUTION COPPER MINING, LLC,

Defendant-Intervenor.

No. 2:25-cv-02758-PHX-DWL

**SECOND DECLARATION OF  
MILES E. COLEMAN**

1 I, Miles E. Coleman, state and declare as follows:

2 1. My name is Miles E. Coleman. I am a partner at Nelson Mullins Riley & Scar-  
3 borough LLP. I represent Plaintiffs Gouyen Brown Lopez, Sinetta Lopez, L.B., Nomie  
4 Brown, Angela Kinsey, V.K., and M.K. in the above-captioned matter. I have personal  
5 knowledge of everything testified to in this declaration.

6 2. Attached as Exhibit A is a true and correct copy of the U.S. Geological Survey's  
7 2021 Draft List of Critical Minerals, which was published in the Federal Register at 86  
8 Fed. Reg. 62199 (Nov. 9, 2021) and is available here: [https://www.govinfo.gov/con-](https://www.govinfo.gov/content/pkg/FR-2021-11-09/pdf/2021-24488.pdf)  
9 [tent/pkg/FR-2021-11-09/pdf/2021-24488.pdf](https://www.govinfo.gov/content/pkg/FR-2021-11-09/pdf/2021-24488.pdf).

10 3. Attached as Exhibit B is a true and correct copy of an April 13, 2023, letter from  
11 David Applegate, Director of the U.S. Geological Survey, to Senator Krysten Sinema, re-  
12 garding copper's exclusion from the U.S. Geological Survey's list of critical minerals,  
13 which is also available here: [https://www.mining.com/wp-content/uploads/2023/05/usgs-](https://www.mining.com/wp-content/uploads/2023/05/usgs-letter-to-sinema.pdf)  
14 [letter-to-sinema.pdf](https://www.mining.com/wp-content/uploads/2023/05/usgs-letter-to-sinema.pdf).

15 4. Attached as Exhibit C is a true and correct copy of the U.S. Geological Survey's  
16 2025 Commodity Survey for Copper, which is also available here:  
17 <https://pubs.usgs.gov/periodicals/mcs2025/mcs2025-copper.pdf>.

18 5. Attached as Exhibit D is a true and correct copy of an Executive Order issued by  
19 President Trump on February 25, 2025, entitled "Addressing the Threat to National Secu-  
20 rity from Imports of Copper," which is also available here:  
21 <https://www.whitehouse.gov/presidential-actions/2025/02/addressing-the-threat-to-na->  
22 [tionalsecurity-from-imports-of-copper/](https://www.whitehouse.gov/presidential-actions/2025/02/addressing-the-threat-to-na-tionalsecurity-from-imports-of-copper/).

23 6. Attached as Exhibit E is a true and correct copy of a 2012 report entitled "Geology  
24 and Exploration Progress at the Resolution Porphyry Cu-Mo Deposit, Arizona," by Carl  
25 Hehnke, Geoff Ballantyne, Hamish Martin, William Hart, Adam Schwarz, and Holly Stein,  
26 which is listed as a "Baseline Report" on the U.S. Department of Agriculture's website for  
27

1 the Resolution project and which is also available here: <https://www.resolutionmi->  
2 [neis.us/documents/hehnke-2012](https://www.resolutionmi-neis.us/documents/hehnke-2012).

3 7. Attached as Exhibit F is a true and correct copy of an Executive Order issued by  
4 President Trump on March 20, 2025, entitled “Immediate Measures to Increase American  
5 Mineral Production,” which is also available here: <https://www.whitehouse.gov/presiden->  
6 [tial-actions/2025/03/immediate-measures-to-increase-american-mineral-production/](https://www.whitehouse.gov/presidential-actions/2025/03/immediate-measures-to-increase-american-mineral-production/).

7 8. Attached as Exhibit G is a true and correct copy of a document issued by the White  
8 House on February 25, 2025, entitled “Fact Sheet: President Donald J. Trump Addresses  
9 the Threat to National Security from Imports of Copper,” which is also available here:  
10 <https://www.whitehouse.gov/fact-sheets/2025/02/fact-sheet-president-donald-j-trump-ad->  
11 [dresses-the-threat-to-national-security-from-imports-of-copper/](https://www.whitehouse.gov/fact-sheets/2025/02/fact-sheet-president-donald-j-trump-addresses-the-threat-to-national-security-from-imports-of-copper/).

12 9. Attached as Exhibit H is a true and correct copy of October 28, 2019, comments on  
13 the Resolution Copper Draft Environmental Impact Statement prepared by David M.  
14 Chambers, Ph.D., P.Geosp., and which is reflected in the final EIS at, *e.g.*, 6-EIS-R-73.

15 10. I declare under penalty of perjury that the foregoing is true and correct.

16 Executed this 11th day of August, 2025.

17 

18  
19 Miles E. Coleman

# Exhibit A

[FR Doc. 2021-24408 Filed 11-8-21; 8:45 am]

BILLING CODE 9110-12-P

**DEPARTMENT OF HOMELAND SECURITY****U.S. Citizenship and Immigration Services**

[OMB Control Number 1615-0015]

**Agency Information Collection Activities; Extension, Without Change, of a Currently Approved Collection: Immigrant Petition for Alien Workers****AGENCY:** U.S. Citizenship and Immigration Services, Department of Homeland Security.**ACTION:** 30-Day notice.

**SUMMARY:** The Department of Homeland Security (DHS), U.S. Citizenship and Immigration Services (USCIS) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995. The purpose of this notice is to allow an additional 30 days for public comments.

**DATES:** Comments are encouraged and will be accepted until December 9, 2021.

**ADDRESSES:** Written comments and/or suggestions regarding the item(s) contained in this notice, especially regarding the estimated public burden and associated response time, must be submitted via the Federal eRulemaking Portal website at <http://www.regulations.gov> under e-Docket ID number USCIS-2007-0018. All submissions received must include the OMB Control Number 1615-0015 in the body of the letter, the agency name and Docket ID USCIS-2007-0018.

**FOR FURTHER INFORMATION CONTACT:** USCIS, Office of Policy and Strategy, Regulatory Coordination Division, Samantha Deshommes, Chief, Telephone number (240) 721-3000 (This is not a toll-free number; comments are not accepted via telephone message.). Please note contact information provided here is solely for questions regarding this notice. It is not for individual case status inquiries. Applicants seeking information about the status of their individual cases can check Case Status Online, available at the USCIS website at <http://www.uscis.gov>, or call the USCIS Contact Center at (800) 375-5283; TTY (800) 767-1833.

**SUPPLEMENTARY INFORMATION:****Comments**

The information collection notice was previously published in the **Federal Register** on July 30, 2021, at 86 FR 41078, allowing for a 60-day public comment period. USCIS did not receive any comments in connection with the 60-day notice.

You may access the information collection instrument with instructions, or additional information by visiting the Federal eRulemaking Portal site at: <http://www.regulations.gov> and enter USCIS-2007-0018 in the search box. The comments submitted to USCIS via this method are visible to the Office of Management and Budget and comply with the requirements of 5 CFR 1320.12(c). All submissions will be posted, without change, to the Federal eRulemaking Portal at <http://www.regulations.gov>, and will include any personal information you provide. Therefore, submitting this information makes it public. You may wish to consider limiting the amount of personal information that you provide in any voluntary submission you make to DHS. DHS may withhold information provided in comments from public viewing that it determines may impact the privacy of an individual or is offensive. For additional information, please read the Privacy Act notice that is available via the link in the footer of <http://www.regulations.gov>.

Written comments and suggestions from the public and affected agencies should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used,

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses.

**Overview of This Information Collection**

(1) *Type of Information Collection Request:* Extension, Without Change, of a Currently Approved Collection.

(2) *Title of the Form/Collection:* Immigrant Petition for Alien Workers.

(3) *Agency form number, if any, and the applicable component of the DHS sponsoring the collection:* I-140; USCIS.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary:* Business or other for-profit; Not-for-profit institutions. The information collected on this form will be used by USCIS to determine eligibility for the requested immigration benefits under section 203(b)(1), 203(b)(2), or 203(b)(3) of the Immigration and Nationality Act.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The estimated total number of respondents for the information collection I-140 is 148,000 and the estimated hour burden per response is 1.08 hour.

(6) *An estimate of the total public burden (in hours) associated with the collection:* The total estimated annual hour burden associated with this collection is 159,840 hours.

(7) *An estimate of the total public burden (in cost) associated with the collection:* The estimated total annual cost burden associated with this collection of information is \$20,596,559.

Dated: November 4, 2021.

**Samantha L. Deshommes,**  
Chief, Regulatory Coordination Division,  
Office of Policy and Strategy, U.S. Citizenship  
and Immigration Services, Department of  
Homeland Security.

[FR Doc. 2021-24482 Filed 11-8-21; 8:45 am]

BILLING CODE 9111-97-P

**DEPARTMENT OF THE INTERIOR****Geological Survey**

[GX22GS00EMMA900]

**2021 Draft List of Critical Minerals****AGENCY:** U.S. Geological Survey, Department of the Interior.**ACTION:** Notice of opportunity for public comment.

**SUMMARY:** The United States remains heavily dependent on imports of certain mineral commodities that are vital to the Nation's economic and national security interests. This dependency has the potential to create strategic vulnerabilities arising from adverse foreign actions, pandemics, natural disasters, or other events that can disrupt the supply of critical minerals. The Department of the Interior (DOI)

published a list of 35 critical minerals<sup>1</sup> or mineral groups on May 18, 2018, in response to Executive Order 13817—A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals.

**DATES:** To ensure consideration, written comments must be submitted before December 9, 2021.

**ADDRESSES:** You may submit written comments online at <http://www.regulations.gov> by entering “DOI-2021-xxxx” in the Search bar and clicking “Search,” or by mail to Draft List of Critical Minerals, MS-102, U.S. Geological Survey, 12201 Sunrise Valley Dr., Reston, VA 20192.

**FOR FURTHER INFORMATION CONTACT:** James Mosley, (703) 648-6312, [jmosley@usgs.gov](mailto:jmosley@usgs.gov). Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service (FRS) at 1-800-877-8339 to contact Mr. Mosley during normal business hours. The FRS is available 24 hours a day, 7 days a week, to leave a message or question with this individual. You will receive a reply during normal business hours. Normal business hours are 9:00 a.m. to 5:30 p.m., Monday through Friday, except for Federal holidays.

**SUPPLEMENTARY INFORMATION:** Pursuant to Section 7002 (“Mineral Security”) of Title VII (“Critical Minerals”) of the Energy Act of 2020 (The Energy Act) (Pub. L. 116-260, December 27, 2020, 116th Cong.),<sup>2</sup> the Secretary of the Interior (The Secretary), acting through the Director of the U.S. Geological Survey, and in consultation with the Secretaries of Defense, Commerce, Agriculture, and Energy and the United States Trade Representative, is to “publish in the **Federal Register** for public comment—(A) a description of the draft methodology used to identify a draft list of critical minerals; (B) a draft list of minerals, elements, substances, and materials that qualify as critical minerals; and (C) a draft list of critical minerals recovered as byproducts and their host minerals.”

Under the Energy Act, Sec. 7002 (c)(5)(A) the methodology and list shall be reviewed at least every 3 years.

On behalf of the Secretary, the Associate Director for Natural Hazards exercising the authority of the Director of the U.S. Geological Survey presents here a draft list of 50 mineral commodities proposed for inclusion on

the 2021 list of critical minerals: Aluminum, antimony, arsenic, barite, beryllium, bismuth, cerium, cesium, chromium, cobalt, dysprosium, erbium, europium, fluorspar, gadolinium, gallium, germanium, graphite, hafnium, holmium, indium, iridium, lanthanum, lithium, lutetium, magnesium, manganese, neodymium, nickel, niobium, palladium, platinum, praseodymium, rhodium, rubidium, ruthenium, samarium, scandium, tantalum, tellurium, terbium, thulium, tin, titanium, tungsten, vanadium, ytterbium, yttrium, zinc, and zirconium.

Much of the increase in the number of mineral commodities, from 35 commodities and groups on the final 2018 list to 50 commodities on the 2021 draft list, is the result of splitting the rare earth elements and platinum group elements into individual entries rather than including them as mineral groups. In addition, the 2021 draft list adds nickel and zinc and removes helium, potash, rhenium, and strontium. The Energy Act of 2020 explicitly excluded fuel minerals from the definition of a critical mineral and the Mining and Mineral Policy Act of 1970<sup>3</sup> formally defined uranium as a mineral fuel, so uranium was not evaluated for inclusion on the 2021 draft list of critical minerals.

Minerals were included on the 2021 draft list of critical minerals based on three evaluations: (1) A quantitative evaluation wherever sufficient data were available, (2) a semi-quantitative evaluation of whether the supply chain had a single point of failure, and (3) a qualitative evaluation when other evaluations were not possible. The report<sup>4</sup> describing the methodology and the technical input from the U.S. Geological Survey may be found at the following link: <https://doi.org/10.3133/ofr20211045> and further details are summarized in the supplementary information section below. The U.S. Geological Survey seeks comments on the make-up of the draft list and the rationale associated with potential additions or subtractions to the draft list as described in the methodology report.

The Energy Act of 2020, Section 7002(c)(4)(A), defined critical minerals as those which:

(i) “are essential to the economic or national security of the United States;

(ii) the supply chain of which is vulnerable to disruption (including restrictions associated with foreign political risk, abrupt demand growth, military conflict, violent unrest, anti-competitive or protectionist behaviors, and other risks through-out the supply chain); and

(iii) serve an essential function in the manufacturing of a product (including energy technology-, defense-, currency-, agriculture-, consumer electronics-, and healthcare-related applications), the absence of which would have significant consequences for the economic or national security of the United States.”

Section 7002(a)(3)(B) further defined the term by stating that “The term “critical mineral” does not include—

- (i) fuel minerals;
- (ii) water, ice, or snow;
- (iii) common varieties of sand, gravel, stone, pumice, cinders, and clay.”

The Mining and Minerals Policy Act of 1970, 30 U.S.C. 21(a), defined “mineral fuels” as “including oil, gas, coal, oil shale and uranium”. Based on these definitions, uranium was not evaluated for inclusion on the 2021 draft list of critical minerals.

The U.S. Government and other organizations may also use other definitions and rely on other criteria to identify a material or mineral as “critical” or otherwise important. This list is not intended to replace related terms and definitions of materials that are deemed strategic, critical or otherwise important (such as definitions related to the National Defense Stockpile, Specialty Materials, and Militarily Critical Materials). In addition, there are many minerals not listed on the critical minerals list that are important to the U.S. economy. These materials are not considered critical as defined by the Energy Act because the U.S. largely meets its needs for these through domestic mining and processing and thus a supply disruption is considered unlikely.

The 2021 draft list of critical minerals is based on a methodology developed over several years with leadership by the U.S. Geological Survey and interagency input coordinated by the White House Office of Science and Technology Policy’s National Science and Technology Council (NSTC) Critical Minerals Subcommittee. The 2021 update to the methodology was published by the U.S. Geological Survey in 2021 (<https://doi.org/10.3133/ofr20211045>) and includes three evaluations: (1) A quantitative evaluation wherever sufficient data were available, (2) a semi-quantitative evaluation of whether the supply chain

<sup>1</sup> Final Critical Minerals List 2018 <https://www.federalregister.gov/documents/2018/05/18/2018-10667/final-list-of-critical-minerals-2018>.

<sup>2</sup> Energy Act of 2020 (Division Z of the Consolidated Appropriations Act, 2021): <https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-116HR133SA-RCP-116-68.pdf>.

<sup>3</sup> Mining and Minerals Policy Act of 1970 [https://openet.org/wiki/Mining\\_and\\_Minerals\\_Policy\\_Act\\_of\\_1970](https://openet.org/wiki/Mining_and_Minerals_Policy_Act_of_1970).

<sup>4</sup> Nassar, N.T., and Fortier, S.M., 2021, Methodology and technical input for the 2021 review and revision of the U.S. Critical Minerals List: U.S. Geological Survey Open-File Report 2021-1045, 31 p., <https://doi.org/10.3133/ofr20211045>.

had a single point of failure, and (3) a qualitative evaluation when other evaluations were not possible. The quantitative evaluation is an enhancement of the NSTC methodology published in 2018 (<https://doi.org/10.3133/ofr20181021>) and used to develop the 2018 list of critical minerals. The 2021 quantitative evaluation uses (A) a net import reliance indicator of the dependence of the U.S. manufacturing sector on foreign supplies, (B) an enhanced production concentration indicator which focuses on production concentration outside of the United States, (C) weights for each producing country's production contribution by its ability or willingness to continue to supply the United States, and converts the 2018 methodology's

qualitative evaluation of economic importance into a quantitative evaluation of economic vulnerability for the U.S. manufacturing sector. Further details on the underlying rationale and the specific approach, data sources, and assumptions used to calculate each component of the supply risk metrics are described in the references cited in this notice.

Table 1 shows the result of the review of the list of critical minerals for 2021, ranked in order of decreasing supply chain risk when a quantitative evaluation was possible. The table columns indicate whether each mineral commodity recommended for inclusion on the 2021 draft list of critical minerals, the basis for the recommendation (quantitative

evaluation, single point of failure, or qualitative evaluation), whether the commodity was included in on the 2018 final list of critical minerals, and whether it is produced primarily as a byproduct of another mineral commodity. Of the sixty-six mineral commodities listed in Table 1, fifty-four (82% of the minerals considered) could be evaluated using the quantitative NSTC methodology. This includes mineral commodities that are recommended for inclusion on the list based on a single point of supply chain failure, as applicable, even if the commodity did not meet the quantitative threshold cutoff. See methodology references for further details.

TABLE 1—SUMMARY OF EVALUATION OF MINERAL COMMODITIES FOR THE 2021 LIST OF CRITICAL MINERALS

Highest to lowest supply chain risk, based on quantitative evaluation <sup>5</sup>	Mineral commodity	Included on draft 2021 list of critical minerals?	Basis for recommended inclusion	On 2018 list of critical minerals?	Predominantly recovered as byproduct? <sup>6</sup>
1	Gallium	Yes	Quantitative evaluation	Yes	Yes.
2	Niobium	Yes	Quantitative evaluation	Yes	No.
3	Cobalt	Yes	Quantitative evaluation	Yes	Yes.
4	Neodymium	Yes	Quantitative evaluation	Yes	Yes.
5	Ruthenium	Yes	Quantitative evaluation	Yes	Yes.
6	Rhodium	Yes	Quantitative evaluation	Yes	Yes.
7	Dysprosium	Yes	Quantitative evaluation	Yes	Yes.
8	Aluminum	Yes	Quantitative evaluation	Yes	No.
9	Fluorspar	Yes	Quantitative evaluation	Yes	No.
10	Platinum	Yes	Quantitative evaluation	Yes	No.
11	Iridium	Yes	Quantitative evaluation	Yes	Yes.
12	Praseodymium	Yes	Quantitative evaluation	Yes	Yes.
13	Cerium	Yes	Quantitative evaluation	Yes	Yes.
14	Lanthanum	Yes	Quantitative evaluation	Yes	Yes.
15	Bismuth	Yes	Quantitative evaluation	Yes	Yes.
16	Yttrium	Yes	Quantitative evaluation	Yes	Yes.
17	Antimony	Yes	Quantitative evaluation	Yes	Yes.
18	Tantalum	Yes	Quantitative evaluation	Yes	No.
19	Hafnium	Yes	Quantitative evaluation	Yes	Yes.
20	Tungsten	Yes	Quantitative evaluation	Yes	No.
21	Vanadium	Yes	Quantitative evaluation	Yes	Yes.
22	Tin	Yes	Quantitative evaluation	Yes	No.
23	Magnesium	Yes	Quantitative evaluation	Yes	No.
24	Germanium	Yes	Quantitative evaluation	Yes	Yes.
25	Palladium	Yes	Quantitative evaluation	Yes	Yes.
26	Titanium	Yes	Quantitative evaluation	Yes	No.
27	Zinc	Yes	Quantitative evaluation	No	No.
28	Graphite	Yes	Quantitative evaluation	Yes	No.
29	Chromium	Yes	Quantitative evaluation	Yes	No.
30	Arsenic	Yes	Quantitative evaluation	Yes	Yes.
31	Barite	Yes	Quantitative evaluation	Yes	No.
32	Indium	Yes	Quantitative evaluation	Yes	Yes.
33	Samarium	Yes	Quantitative evaluation	Yes	Yes.
34	Manganese	Yes	Quantitative evaluation	Yes	No.
35	Lithium	Yes	Quantitative evaluation	Yes	No.
36	Tellurium	Yes	Quantitative evaluation	Yes	Yes.
37	Lead	No	Not applicable	No	No.
38	Potash	No	Not applicable	Yes	No.
39	Strontium	No	Not applicable	Yes	No.
40	Rhenium	No	Not applicable	Yes	Yes.
41	Nickel	Yes	Single point of failure	No	No.
42	Copper	No	Not applicable	No	No.
43	Beryllium	Yes	Single point of failure	Yes	No.
44	Feldspar	No	Not applicable	No	No.
45	Phosphate	No	Not applicable	No	No.
46	Silver	No	Not applicable	No	Yes.

TABLE 1—SUMMARY OF EVALUATION OF MINERAL COMMODITIES FOR THE 2021 LIST OF CRITICAL MINERALS—Continued

Highest to lowest supply chain risk, based on quantitative evaluation <sup>5</sup>	Mineral commodity	Included on draft 2021 list of critical minerals?	Basis for recommended inclusion	On 2018 list of critical minerals?	Predominantly recovered as byproduct? <sup>6</sup>
47	Mica	No	Not applicable	No	No.
48	Selenium	No	Not applicable	No	Yes.
49	Cadmium	No	Not applicable	No	Yes.
50	Zirconium	Yes	Single point of failure	Yes	Yes.
51	Molybdenum	No	Not applicable	No	No.
52	Gold	No	Not applicable	No	No.
53	Helium	No	Not applicable	Yes	Yes.
54	Iron ore	No	Not applicable	No	No.
(7)	Cesium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Erbium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Europium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Gadolinium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Holmium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Lutetium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Rubidium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Scandium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Terbium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Thulium	Yes	Qualitative evaluation	Yes	Yes.
(8)	Uranium	Not evaluated	Not applicable	Yes	No.
(8)	Ytterbium	Yes	Qualitative evaluation	Yes	Yes.

Table 1 includes 11 mineral commodities that are not recommended for inclusion on the 2021 list of critical minerals. These mineral commodities did not meet the NSTC quantitative evaluation criteria, were determined not to have a single point of failure and were not included on the 2018 list of critical minerals. These eleven commodities (17% of the minerals evaluated) are: Lead, copper, feldspar, phosphate, silver, mica, selenium, cadmium, molybdenum, gold, and iron ore, ranked in order of their overall supply chain risk. While several of these are essential mineral commodities, their supply chain vulnerability is mitigated by domestic production, lack of import

dependence, and diverse, secure sources of supply.

Mineral commodities that did not meet the criteria for the NSTC quantitative evaluation, but that have an identified single point of supply chain failure and an essential economic function, are recommended for inclusion on the 2021 list of critical minerals regardless of whether the commodities in question were on the 2018 list. Examples are beryllium and zirconium, which were on the 2018 list, and nickel, which was not. Increasing demand for nickel as a component for producing cathodes for lithium-ion batteries, and the limited mining, smelting, and refinery capacity in the United States make a compelling case for inclusion.

Zinc, which was not on the 2018 list of critical minerals, was above the quantitative threshold for inclusion on the 2021 draft list of critical minerals due to the increasing concentration of mine and smelter capacities globally and the continued refinement and development of the quantitative evaluation criteria.

Potash, rhenium, and strontium were on the 2018 list of critical minerals but do not meet the quantitative threshold and do not have a single point of failure. Potash, strontium, and rhenium have supply risk scores just below the quantitative threshold. This highlights the fact that the metrics developed with this methodology are best viewed as a continuum of supply risk rather than an as indication that supply risk does not exist for commodities below the

quantitative cutoff. These three commodities all had very high trade exposure but low disruption potential. This reflects the fact that, while the United States was highly net import reliant for all three commodities, the production of these minerals was either not highly concentrated or was concentrated in countries considered to be reliable trade partners. Any changes in the supply chain dynamics of these commodities will be closely monitored, but none of the three is recommended for inclusion on the 2021 draft list of critical minerals.

Helium (like potash, rhenium, and strontium) was on the 2018 list of critical minerals but does not meet the quantitative threshold nor have a single point of failure. The United States is the world's leading producer and a net exporter of helium. Helium's trade exposure score was thus 0 and, in turn, its supply risk score was 0. Crude helium was produced in more than a dozen plants across several U.S. States, and several other plants produced grade-A Helium. Therefore, helium does not qualify for inclusion on the list based on the single point of failure criterion. Helium production outside the United States was concentrated in Qatar and Algeria. Both countries, as well as Canada, Russia, and Tanzania, are poised to increase their production as additional capacity becomes available in the near term. The Helium Stewardship Act of 2013-directed closure of the Federally managed helium reserve by the Bureau of Land Management has the potential to

<sup>5</sup> Ranked in order from highest to lowest risk based on a recency-weighted mean of the commodities' overall supply risk scores. See the published methodology (<https://doi.org/10.3133/ofr20211045>) for further details.

<sup>6</sup> Most mineral commodities are recovered as byproducts to some degree, but the share of primary production as a byproduct for the mineral commodities that are not identified as byproducts in the table is typically small. Rare earth elements (REEs) are mined both as byproducts of other mineral commodities (for example, iron ore or heavy-mineral sands) and as the main product. Where REEs are mined as the main product, the individual REEs are either byproducts or coproducts of each other. For simplicity, all REEs are labeled in the table as having been produced mostly as byproducts. Byproduct status can and does change, although notable changes over short periods of time are rare.

<sup>7</sup> Commodities that were not evaluated using the quantitative evaluation are not given a rank and are ordered alphabetically.

<sup>8</sup> USGS Mineral Commodity Summaries 2021 <https://pubs.usgs.gov/periodicals/mcs2021/mcs2021.pdf>.

increase uncertainty in the market. The global shift from conventional natural gas toward shale gas, which lacks recoverable quantities of helium, also has the potential to reduce the supply of helium, especially for the United States. While these factors make helium a commodity that bears watching, it is not recommended for inclusion on the 2021 draft list of critical minerals.

There were insufficient data to quantitatively evaluate several commodities that were on the 2018 list of critical minerals: Cesium, rubidium, scandium, and several REEs (europium, gadolinium, terbium, holmium, erbium, thulium, ytterbium, and lutetium). The United States has been completely net import reliant for all these commodities for many years.<sup>8</sup> No specific global production data were available for these commodities; however, general information suggests that production for each of these commodities is highly concentrated in a few countries. Scandium was produced mainly as a byproduct in China, Kazakhstan, the Philippines, Russia, and Ukraine. Cesium and rubidium had been produced in Australia, Canada, China, Namibia, and Zimbabwe; however, it is thought that all cesium and rubidium mine production outside of China has either ceased in recent years or come under control of Chinese companies. The REEs that were not analyzed because of the lack of data (namely europium, gadolinium, terbium, holmium, erbium, thulium, ytterbium, and lutetium) were all heavy REEs that were produced only or predominantly in China. Based on this qualitative evaluation, none of these commodities are recommended for removal from the list of critical minerals.

Mineral criticality is not static, but changes over time. This analysis represents the most recent available data for non-fuel mineral commodities and the current state of the methodology for evaluation of criticality.

Please submit written comments on this draft list by December 9, 2021 to facilitate consideration. In particular, the U.S. Geological Survey is interested in comments addressing the following topics: The make-up of the draft list and the rationale associated with potential additions or subtractions to the draft list. Before including your address, phone number, email address, or other personally identifiable information (PII) in your comment, you should be aware that your entire comment, including your PII, may be made publicly available at any time. While you can ask us in your comment to withhold your PII from public review, we cannot guarantee that we will be able to do so.

*Authority:* E.O. 13817, 82 FR 60835 (December 26, 2017) and The Energy Act of 2020, Section 7002 of Title VII (December 27, 2020).

Dated: November 4, 2021.

**James D. Applegate,**

*Associate Director for Natural Hazards, Exercising the Delegated Authority of the Director, U.S. Geological Survey.*

[FR Doc. 2021-24488 Filed 11-8-21; 8:45 am]

**BILLING CODE 4334-63-P**

## DEPARTMENT OF THE INTERIOR

### National Park Service

**[NPS-WASO-CR-NAGPRA-NPS0031736; PPWOCRADNO-PCU00RP14.R50000 (211); OMB Control Number 1024-0144]**

#### Agency Information Collection Activities; Native American Graves Protection and Repatriation Regulations

**AGENCY:** National Park Service, Interior.

**ACTION:** Notice of information collection; request for comment.

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995, we, the National Park Service (NPS) are proposing to renew an information collection.

**DATES:** Interested persons are invited to submit comments on or before January 10, 2022.

**ADDRESSES:** Send your comments on this information collection request (ICR) to Phadrea Ponds, NPS Information Collection Clearance Officer by email to [phadrea\\_ponds@nps.gov](mailto:phadrea_ponds@nps.gov). Please reference OMB Control Number 1024-0144 in the subject line of your comments.

**FOR FURTHER INFORMATION CONTACT:** To request additional information about this ICR, contact Melanie O'Brien, Manager, National NAGPRA Program by email at [melanie\\_o'brien@nps.gov](mailto:melanie_o'brien@nps.gov), or by telephone at (202) 354-2204.

Individuals who are hearing or speech impaired may call the Federal Relay Service at 1-800-877-8339 for TTY assistance.

**SUPPLEMENTARY INFORMATION:** In accordance with the Paperwork Reduction Act of 1995 (PRA, 44 U.S.C. 3501 *et seq.*) and 5 CFR 1320.8(d)(1), all information collections require approval under the PRA. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

As part of our continuing effort to reduce paperwork and respondent

burdens, we invite the public and other Federal agencies to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

We are especially interested in public comment addressing the following:

- (1) Whether or not the collection of information is necessary for the proper performance of the functions of the agency, including whether or not the information will have practical utility.
- (2) The accuracy of our estimate of the burden for this collection of information, including the validity of the methodology and assumptions used.
- (3) Ways to enhance the quality, utility, and clarity of the information to be collected.

- (4) How might the agency minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.*, permitting electronic submission of response.

Comments that you submit in response to this notice are a matter of public record. We will include or summarize each comment in our request to OMB to approve this ICR. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

**Abstract:** Authorized by the Native American Graves Protection and Repatriation Act (NAGPRA), U.S.C. 3001-3013, all public and private museums receiving Federal funds compile information regarding Native American cultural items in their possession or control. This information must be provided to lineal descendants, likely interested Indian tribes, Native Hawaiian organizations, and the NPS National NAGPRA Program. Under NAGPRA and its implementing regulations, we are mandated to collect any information that is pertinent in determining the cultural affiliation and geographical origin of Native American human remains and cultural items. This

# Exhibit B



United States Department of the Interior  
U.S. Geological Survey  
Office of the Director  
Reston, Virginia 20192

April 13, 2023

The Honorable Kyrsten Sinema  
United States Senate  
Washington, DC 20510

Dear Senator Sinema:

Thank you for your letter to Secretary Haaland dated February 2, 2023, requesting that copper be reconsidered for inclusion on the list of critical minerals. I am pleased to respond on behalf of the U.S. Geological Survey (USGS). In this response, we briefly review the approach the USGS follows in leading the interagency development of the list of critical minerals, address the concerns raised in your letter, and highlight the latest data and some specific considerations regarding USGS studies related to copper.

### Methodology

The list of critical minerals is based on a methodology developed over several years under the leadership of the USGS and with interagency input coordinated by the White House Office of Science and Technology Policy's National Science and Technology Council (NSTC) Critical Minerals Subcommittee. Minerals were included on the 2022 list of critical minerals<sup>1</sup> based on three evaluations: (1) a quantitative evaluation wherever sufficient data were available, (2) a semi-quantitative evaluation of whether the supply chain had a single point of failure, and (3) a qualitative evaluation when other evaluations were not possible<sup>2</sup>. The quantitative methodology is based on an approach that defines supply risk as the confluence of the following three factors: (1) the likelihood of a foreign supply disruption, (2) the dependency of the U.S. manufacturing sector on foreign supplies (i.e., net import reliance), and (3) the vulnerability of the U.S. manufacturing sector to a supply disruption. The consideration of these factors to assess criticality is consistent with the definition of a "critical mineral" from the Energy Act of 2020.

For both accuracy and completeness, the list is based on the most recent data for actual consumption and production of mineral commodities. Your letter notes that data from 2018 were the most recent used in developing the 2022 list of critical minerals. Development and publication of the new methodology and the associated quantitative analysis was completed in 2020-2021, using data from 2018, the most recent year for which complete datasets (both USGS and external) were available for inclusion in the analysis. Subsequently, the methodology and draft list were subject to a rigorous review process including peer review required of all USGS

<sup>1</sup> <https://www.federalregister.gov/documents/2022/02/24/2022-04027/2022-final-list-of-critical-minerals>

<sup>2</sup> Nassar, N.T., and Fortier, S.M., 2021, Methodology and technical input for the 2021 review and revision of the U.S. Critical Minerals List: U.S. Geological Survey Open-File Report 2021-1045, 31 p., <https://doi.org/10.3133/ofr20211045>.

The Honorable Kyrsten Sinema

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publications, an interagency review through the NSTC Critical Minerals Subcommittee, and a review of public comments received in response to the Federal Register Notice of the draft list of critical minerals.

### Copper

The USGS recognizes that copper is an essential mineral commodity to U.S. economic and national security interests. As noted in the Federal Register Notice for the draft list of critical minerals, copper is also a host mineral for several byproduct critical minerals. While copper did not meet the criteria for inclusion on the 2022 list of critical minerals, we recognize that the geopolitical situation and the effects of the COVID-19 pandemic on supply chains are prompting reasonable questions over whether key commodities' supply chain risks should be reevaluated before the three-year update cycle established by the Energy Act of 2020.

Your letter also highlights the many forecasts of increasing copper demand, driven by both traditional uses of copper and the additional requirements for new low-carbon energy infrastructure.

We have reviewed the most recent data on copper supply and short-term projections of future supply. Data on reserves and identified resources available in the newest annual Mineral Commodities Summary<sup>3</sup> inform analyses of near-term potential for domestic and global copper production, and a recent assessment of undiscovered global copper resources<sup>4</sup> provides a framework for estimating long-term production potential. In addition, in response to the Energy Act of 2020, the USGS is developing a series of mineral commodity outlooks that include five-year production projections for an annual rotating set of nine mineral commodities. The first nine commodities are copper, bauxite (aluminum), cobalt, iron ore, lithium, nickel, palladium, platinum, and tin.

The most recent data for copper supply chains indicate a significant disruption at the start of the pandemic and a subsequent rebound. Copper imports to the United States are predominantly refined copper. Imports of refined copper increased in 2021 but then decreased significantly from 2021 to 2022. The relatively high level of imports in 2021 appear to represent a rebound from much lower imports in 2019 and 2020 during the height of the COVID-19 pandemic. The pandemic had large, broad impacts on many mineral commodity supply chains which are only now returning to pre-pandemic levels.

In the analysis for the 2022 list of critical minerals, the USGS assessed copper as having a relatively high economic vulnerability score, indicating that the U.S. manufacturing sector is

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<sup>3</sup> U.S. Geological Survey, 2023, Mineral commodity summaries 2023: U.S. Geological Survey, 210 p., <https://doi.org/10.3133/mcs2023>.

<sup>4</sup> Hammarstrom, J.M., Zientek, M.L., Parks, H.L., Dicken, C.L., and the U.S. Geological Survey Global Copper Mineral Resource Assessment Team, 2019, Assessment of undiscovered copper resources of the world, 2015 (ver.1.1, May 24, 2019): U.S. Geological Survey Scientific Investigations Report 2018–5160, 619 p., <https://doi.org/10.3133/sir20185160>.

The Honorable Kyrsten Sinema

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vulnerable to a supply disruption, but this vulnerability was mitigated by a relatively low U.S. net import reliance on foreign supplies and a diversity of foreign supply sources. Although net import reliance increased from 2018 to 2021, the latest data from the 2023 Mineral Commodity Summaries, published on January 31, 2023, indicate that import reliance decreased over the past year, from 44% in 2021 to 41% in 2022. Imports of refined copper decreased in 2022 even as domestic copper consumption increased.

The consultant report sponsored by the Copper Development Association<sup>5</sup> (CDA) states that, based on more recent data, the recency-weighted supply risk for copper now exceeds the 0.40 threshold used for inclusion on the 2022 list of critical minerals. An important difference between the USGS and CDA analyses is that the USGS incorporates the most recent data for all mineral commodities into the model simultaneously, instead of analyzing potential changes for a single commodity. This requirement ensures that the model incorporates structural changes in commodities markets or supply chains that may have occurred since the last update, even those that have not (yet) affected the copper supply chain.

The U.S. has significant domestic copper production and a diversity of foreign supply sources. The USGS estimates that the United States mined 1.3 million tons of recoverable copper in 2022. Copper was mined in seven different states (led by Arizona) and the United States has multiple domestic options for downstream smelting and refining to copper metal. The United States has 25 operating copper mines, 2 smelters, 2 electrolytic refineries, and 14 electrowinning facilities. In addition, the observation that more than half of the global supply of refined copper is produced in China, Russia, North Korea, and Iran, while factually correct, is not directly relevant to the copper supply of the United States. Imports of refined copper to the United States are not dependent on any of the countries cited. American imports of refined copper come predominantly from Chile, Canada, and Mexico, reliable trade partners with whom the U.S. has free trade agreements.

Finally, the United States supplied about a third of its domestic copper consumption requirements from recycling in 2022, a good example of the potential for secondary production to mitigate supply chain risks.

#### Ongoing USGS Copper Studies

In recognition of the importance of copper mining to the United States' economic and national security, both for copper itself and for many byproduct critical minerals, the USGS continues to emphasize copper in its research, resource assessments, and supply chain studies. Recent USGS studies of copper include the publication in 2019 of a first-ever global assessment of undiscovered copper resources for the two most significant sources of global copper supply: porphyry copper deposits and sediment-hosted stratabound copper deposits. The geology-based

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<sup>5</sup> Copper Development Association, [https://copper.org/copperiscritical.org/report/CDA\\_Copper\\_Critical\\_Mineral\\_full\\_report.pdf](https://copper.org/copperiscritical.org/report/CDA_Copper_Critical_Mineral_full_report.pdf)

The Honorable Kyrsten Sinema

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study identified 236 areas for undiscovered copper in 11 regions of the world<sup>6</sup>. Additionally, the USGS Earth Mapping Resources Initiative (Earth MRI) has included areas permissive for copper deposits with the potential to host critical minerals as potential targets for geophysical, geochemical, and geologic mapping, with southeastern Arizona and western Utah among the focus areas for new mapping in 2023.

### Summary

Mineral criticality is not static but changes over time. In accordance with the Energy Act of 2020, the USGS will continue to review and update the criticality methodology and the list of critical minerals at least every three years. This cycle will include a reanalysis of the entire suite of mineral commodities, based on the most recent and complete data available.

While copper is clearly an essential mineral commodity, its supply chain vulnerabilities are mitigated by domestic capacity, trade with reliable partners, and significant secondary capacity. As a result, the USGS does not believe that the available information on copper supply and demand justifies an out-of-cycle addition to the list at this time. The USGS will continue to carefully monitor copper supply and consumption data for the next list of critical minerals review and revision cycle. We take the input we are receiving from Congress seriously and anticipate opportunities for public comment on copper and other minerals as part of this review cycle.

Thank you again for your letter. We greatly appreciate your interest in the supply chains of minerals essential to the economic and national security of the United States. If you or your staff would like more information on copper, the 2022 list of critical minerals, or any other related topics, please contact the USGS Congressional Liaison Office at [cong\\_liaison@usgs.gov](mailto:cong_liaison@usgs.gov), 703-648-4455.

Sincerely,



David Applegate  
Director

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<sup>6</sup> Hammarstrom, J.M., Zientek, M.L., Parks, H.L., Dicken, C.L., and the U.S. Geological Survey Global Copper Mineral Resource Assessment Team, 2019, Assessment of undiscovered copper resources of the world, 2015 (ver. 1.2, December 2021): U.S. Geological Survey Scientific Investigations Report 2018–5160, 619 p., <https://doi.org/10.3133/sir20185160>.

Identical Letter Sent To:

The Honorable Mark Kelly  
United States Senate  
Washington, DC 20510

The Honorable Joe Manchin, III  
United States Senate  
Washington, DC 20510

The Honorable Mike Braun  
United States Senate  
Washington, DC 20510

The Honorable Raphael Warnock  
United States Senate  
Washington, DC 20510

The Honorable Mitt Romney  
United States Senate  
Washington, DC 20510

# Exhibit C

**COPPER**

(Data in thousand metric tons, copper content, unless otherwise specified)

**Domestic Production and Use:** In 2024, the recoverable copper content of U.S. mine production was an estimated 1.1 million tons, a decrease of 3% from that in 2023, and was valued at an estimated \$10 billion, slightly greater than \$9.83 billion in 2023. Arizona was the leading copper-producing State and accounted for approximately 70% of domestic output; copper was also mined in Michigan, Missouri, Montana, Nevada, New Mexico, and Utah. Copper was recovered or processed at 25 mines (17 of which accounted for more than 99% of mine production), 2 primary smelters, 1 secondary smelter, 2 primary electrolytic refineries, 14 electrowon refineries, and 3 secondary fire refineries. A new secondary smelter and secondary refinery were expected to start up by yearend. Refined copper and scrap were consumed at about 30 brass mills, 14 rod mills, and several hundred foundries and miscellaneous manufacturers. According to the Copper Development Association, copper and copper alloy products were used in building construction, 42%; electrical and electronic products, 23%; transportation equipment, 18%; consumer and general products, 10%; and industrial machinery and equipment, 7%.

<b>Salient Statistics—United States:</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024<sup>e</sup></b>
Production:					
Mine, recoverable	1,200	1,230	1,230	1,130	1,100
Refinery:					
Primary (from ore)	872	922	930	843	850
Secondary (from scrap)	43	49	40	39	40
Copper recovered from old (post-consumer) scrap <sup>1</sup>	161	169	152	<sup>e</sup> 150	150
Imports for consumption:					
Ore and concentrates	2	11	12	3	( <sup>2</sup> )
Refined	676	919	732	771	810
Exports:					
Ore and concentrates	383	344	351	339	320
Refined	41	48	27	33	60
Consumption:					
Reported, refined copper	1,680	1,750	1,720	1,570	1,600
Apparent, primary refined copper and copper from old scrap <sup>3</sup>	1,660	1,960	1,820	1,690	1,800
Price, annual average, cents per pound:					
U.S. producer, cathode (COMEX + premium)	286.7	432.3	410.8	395.3	430
COMEX, high-grade, first position	279.9	424.3	400.7	385.7	420
London Metal Exchange, grade A, cash	279.8	422.5	399.8	384.8	420
Stocks, refined, held by U.S. producers, consumers, and metal exchanges, yearend	118	117	84	127	70
Employment, mine and plant, number	11,000	11,400	12,000	12,600	13,000
Net import reliance <sup>4</sup> as a percentage of apparent consumption	38	44	41	41	45

**Recycling:** Old (post-consumer) scrap, converted to refined metal, alloys, and other forms, provided an estimated 150,000 tons of copper in 2024, and an estimated 720,000 tons of copper was recovered from new (manufacturing) scrap derived from fabricating operations. Brass and wire-rod mills accounted for approximately 85% of the total copper recovered from scrap. Copper recovered from scrap contributed about 35% of the U.S. copper supply.<sup>5</sup>

**Import Sources (2020–23):** Copper content of blister and anodes: Finland, 92%; Malaysia, 3%; and other, 5%. Copper content of matte, ash, and precipitates: Canada, 48%; Belgium, 23%; Japan, 13%; Spain, 6%; and other, 10%. Copper content of ore and concentrates: Canada, >99%; and other, <1%. Copper content of scrap: Canada, 46%; Mexico, 42%; Dominican Republic, 3%; and other, 9%. Refined copper: Chile, 65%; Canada, 17%; Mexico, 9%; Peru, 6%; and other, 3%. Refined copper accounted for 88% of all unmanufactured copper imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12–31–24</b>
	Copper ore and concentrates, copper content	2603.00.0010	1.7¢/kg on lead content.
	Unrefined copper anodes	7402.00.0000	Free.
	Refined copper and alloys, unwrought	7403.00.0000	1% ad valorem.
	Copper scrap	7404.00.0000	Free.
	Copper wire rod	7408.11.0000	1% or 3% ad valorem.

**Depletion Allowance:** 15% (domestic), 14% (foreign).

**Government Stockpile:** None.

Prepared by **Daniel M. Flanagan [(703) 648–7726, dflanagan@usgs.gov]**

## COPPER

**Events, Trends, and Issues:** In 2024, production decreased at a majority of copper mines in the United States, and domestic mined copper output declined by an estimated 3% from that in 2023. At the Bingham Canyon Mine in Utah, changes to the mine plan required to mitigate geotechnical risks resulted in lower ore grades and copper recoveries. Production at the Eagle Mine in Michigan was affected by decreased copper ore grades and reduced mill throughput rates owing to a fall of ground along an ore access ramp. Output also decreased at multiple mines in Arizona and New Mexico because of lower ore grades and mining rates. These decreases were partially offset by a significant increase in mined copper production at the Robinson Mine in Nevada owing to planned mine sequencing that yielded higher ore grades and copper recovery rates. At U.S. refineries, copper production increased slightly in 2024 compared with that in 2023. The Kennecott smelter and electrolytic refinery near Salt Lake City, UT, returned to normal operations in the first quarter of 2024 following major rebuilds in 2023. A new secondary copper refinery in Kentucky and a new secondary copper smelter in Georgia were expected to begin operating by yearend 2024.

The COMEX copper price reached a record high in May 2024 and was projected to average \$4.20 per pound in full year 2024, an increase of 9% from the annual average price in 2023. Analysts attributed the higher price to multiple factors, such as expectations for reduced global copper supply in the near future, optimistic sentiment regarding world copper demand, strong manufacturing production in China, and decreasing inflation in the United States.

**World Mine and Refinery Production and Reserves:** Reserves for Canada, Indonesia, Peru, and the United States were revised based on company, Government, and (or) industry association reports.

	Mine production		Refinery production		Reserves <sup>6</sup>
	2023	2024 <sup>e</sup>	2023	2024 <sup>e</sup>	
United States	1,130	1,100	882	890	47,000
Australia	778	800	442	460	<sup>7</sup> 100,000
Canada	500	450	315	320	8,300
Chile	5,250	5,300	2,080	1,900	190,000
China	1,820	1,800	12,000	12,000	41,000
Congo (Kinshasa)	2,930	3,300	2,170	2,500	80,000
Germany	—	—	609	630	—
India	27	30	509	510	2,200
Indonesia	907	1,100	225	350	21,000
Japan	—	—	1,490	1,600	—
Kazakhstan	<sup>e</sup> 740	740	458	470	20,000
Korea, Republic of	—	—	604	620	—
Mexico	699	700	509	350	53,000
Peru	2,760	2,600	403	390	100,000
Poland	395	410	592	590	34,000
Russia	<sup>e</sup> 890	930	<sup>e</sup> 1,000	960	80,000
Zambia	712	680	222	170	21,000
Other countries	<u>3,020</u>	<u>2,700</u>	<u>2,460</u>	<u>2,500</u>	<u>180,000</u>
World total (rounded)	22,600	23,000	27,000	27,000	980,000

**World Resources:**<sup>6</sup> The most recent U.S. Geological Survey assessment of global copper resources indicated that, as of 2015, identified resources contained 1.5 billion tons of unextracted copper (2.1 billion tons when past production of 0.6 billion tons is included) and undiscovered resources contained an estimated 3.5 billion tons of copper.<sup>8</sup>

**Substitutes:** Aluminum substitutes for copper in automobile radiators, cooling and refrigeration tube, electrical equipment, and power cable. Optical fiber substitutes for copper in telecommunications applications, and plastics substitute for copper in drain pipe, plumbing fixtures, and water pipe. Titanium and steel are used in heat exchangers.

<sup>e</sup>Estimated. — Zero.

<sup>1</sup>Copper converted to refined metal, alloys, and other forms by brass and wire-rod mills, foundries, refineries, and other manufacturers.

<sup>2</sup>Less than ½ unit.

<sup>3</sup>Primary refined production + copper recovered from old scrap + refined imports – refined exports ± adjustments for refined copper stock changes.

<sup>4</sup>Defined as refined imports – refined exports ± adjustments for refined copper stock changes.

<sup>5</sup>Primary refined production + copper from old and new scrap + refined imports – refined exports ± adjustments for refined copper stock changes.

<sup>6</sup>See Appendix C for resource and reserve definitions and information concerning data sources.

<sup>7</sup>For Australia, Joint Ore Reserves Committee-compliant or equivalent reserves were 27 million tons.

<sup>8</sup>Source: Hammarstrom, J.M., Zientek, M.L., Parks, H.L., Dicken, C.L., and the U.S. Geological Survey Global Copper Mineral Resource Assessment Team, 2019, Assessment of undiscovered copper resources of the world, 2015 (ver. 1.2, December 2021): U.S. Geological Survey Scientific Investigations Report 2018–5160, 619 p. (Accessed November 18, 2024, at <https://doi.org/10.3133/sir20185160>.)

# Exhibit D



The WHITE HOUSE



↶ PRESIDENTIAL ACTIONS

ADDRESSING THE THREAT TO NATIONAL  
SECURITY FROM IMPORTS OF COPPER

The White House

February 25, 2025

By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862) (Trade Expansion Act), it is hereby ordered:

Section 1. Policy. Copper is a critical material essential to the national security, economic strength, and industrial resilience of the United States. Copper, scrap copper, and copper's derivative products play a vital role in defense applications, infrastructure, and emerging technologies, including clean energy, electric vehicles, and advanced electronics. The United States faces significant vulnerabilities in the copper supply chain, with increasing reliance on foreign sources for mined, smelted, and refined copper.

The United States has ample copper reserves, yet our smelting and refining capacity lags significantly behind global competitors. A single foreign producer dominates global copper smelting and refining, controlling over 50 percent of global smelting capacity and holding four of the top five largest refining facilities. This dominance, coupled with global overcapacity and a single producer's control of world supply chains, poses a direct threat to United States national security and economic stability.

It is the policy of the United States to ensure a reliable, secure, and resilient domestic copper supply chain. The United States' increasing dependence on foreign sources of copper, particularly from a concentrated number of supplier nations, along with the risk

of foreign market manipulation, necessitate action under section 232 of the Trade Expansion Act to determine whether imports of copper, scrap copper, and copper's derivative products threaten to impair national security.

Sec. 2. Investigation Into the National Security Impact of Copper Imports. (a) The Secretary of Commerce shall initiate an investigation under section 232 of the Trade Expansion Act to determine the effects on national security of imports of copper in all forms, including but not limited to:

- (i) raw mined copper;
- (ii) copper concentrates;
- (iii) refined copper;
- (iv) copper alloys;
- (v) scrap copper; and
- (vi) derivative products.

(b) In conducting the investigation described in subsection (a) of this section, the Secretary of Commerce shall assess the factors set forth in 19 U.S.C. 1862(d), labeled "Domestic production for national defense; impact of foreign competition on economic welfare of domestic industries," as well as other relevant factors, including:

- (i) the current and projected demand for copper in United States defense, energy, and critical infrastructure sectors;
- (ii) the extent to which domestic production, smelting, refining, and recycling can meet demand;
- (iii) the role of foreign supply chains, particularly from major exporters, in meeting United States demand;
- (iv) the concentration of United States copper imports from a small number of suppliers and the associated risks;
- (v) the impact of foreign government subsidies, overcapacity, and predatory trade practices on United States industry competitiveness;
- (vi) the economic impact of artificially suppressed copper prices due to dumping and state-sponsored overproduction;
- (vii) the potential for export restrictions by foreign nations, including the ability of foreign nations to weaponize their control over refined copper supplies;
- (viii) the feasibility of increasing domestic copper mining, smelting, and refining capacity to reduce import reliance; and

(ix) the impact of current trade policies on domestic copper production and whether additional measures, including tariffs or quotas, are necessary to protect national security.

Sec. 3. Required Actions. (a) The Secretary of Commerce shall consult with the Secretary of Defense, the Secretary of the Interior, the Secretary of Energy, and the heads of other relevant executive departments and agencies as determined by the Secretary of Commerce to evaluate the national security risks associated with copper import dependency.

(b) Within 270 days of the date of this order, the Secretary of Commerce shall submit a report to the President that includes:

- (i) findings on whether United States dependence on copper imports threatens national security;
- (ii) recommendations on actions to mitigate such threats, including potential tariffs, export controls, or incentives to increase domestic production; and
- (iii) policy recommendations for strengthening the United States copper supply chain through strategic investments, permitting reforms, and enhanced recycling initiatives.

Sec. 4. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

- (i) the authority granted by law to an executive department or agency, or the head thereof; or
- (ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

THE WHITE HOUSE,  
February 25, 2025.

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## Chapter 7

## Geology and Exploration Progress at the Resolution Porphyry Cu-Mo Deposit, Arizona

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## Abstract

In 1995, the Magma Copper Company discovered a porphyry copper deposit beneath thick postmineral cover 2 km south of the historic Magma mine in Superior, Arizona. Since that time drilling has delineated a large, high-grade, hypogene copper-molybdenum deposit, now named the Resolution deposit, with an Inferred Resource of 1,624 million metric tons (Mt) at 1.47% Cu and 0.037% Mo.

The Resolution deposit is hosted by Proterozoic and Paleozoic quartzite and carbonate units, Proterozoic diabase sills, and Cretaceous sandstone, volcanoclastic rocks, and tuff. Minor Cretaceous to Tertiary hypabyssal intrusions and heterolithic breccia bodies cut this Proterozoic-to-Mesozoic section. The mineralized rocks are concealed beneath an eastward-thickening wedge of Oligo-Miocene Whitetail Conglomerate, which in turn is largely covered by 18.6 Ma welded tuff.

The porphyry copper deposit at Resolution is centrally located within a fault-bounded block with plan dimensions of  $\sim 3 \times 3$  km. The fault-bounded block first developed as a horst, which led to local erosion of Paleozoic strata but was later inverted as a graben, which preserves  $\sim 1$  km of Cretaceous strata not otherwise present in the Superior area. Within the graben, basal quartz-rich sedimentary rocks containing  $\sim 97$  Ma zircons are overlain by a  $\sim 74$  Ma andesitic sequence that was probably derived from outside the graben. Younger units consist mostly of quartz-rich tuffs, whose petrographic similarity and U-Pb ages suggest they are extrusive equivalents of  $\sim 69$  to  $\sim 64$  Ma hypabyssal intrusions present at depth within the graben. Crustal extension and tilting across multiple, large Tertiary normal faults since the onset of Whitetail Conglomerate deposition has rotated the deposit approximately  $25^\circ$  to the east northeast.

Copper mineralization at Resolution defines a structurally intact, dome-shaped shell up to 600 m thick, the upper boundary of which is overlapped by an unusually strong pyrite halo containing 7 to  $>14$  wt % pyrite. The deposit shows strong alteration and mineralization zoning and strong telescoping of alteration assemblages. Early potassic alteration, associated with dominantly chalcopyrite-rich mineralization, gives way outward to an epidote-bearing propylitic zone. Strong quartz-sericite alteration largely overprints the upper portion of the potassic zone and is associated with chalcopyrite, bornite, chalcocite, and pyrite mineralization. Structurally controlled advanced argillic alteration, consisting of kaolinite, dickite, topaz, alunite, pyrophyllite, and zunyite overprints the quartz-sericite zone and is associated with pyrite as well as hypogene bornite, chalcocite, and digenite, which have substantially replaced earlier chalcopyrite. Molybdenite occurs in quartz veins both with and without copper minerals but economic concentrations of copper and molybdenum are spatially coincident.

Re-Os ages for molybdenite range from  $\sim 65$  to  $\sim 64$  Ma, coinciding with the youngest U-Pb age for hypabyssal intrusions. The  $^{40}\text{Ar}/^{39}\text{Ar}$  ages of biotite and sericite range from  $\sim 64$  to  $\sim 62$  Ma and  $^{40}\text{Ar}/^{39}\text{Ar}$  ages for hypogene alunite range from  $\sim 62$  to  $\sim 60$  Ma. Younger,  $\sim 52$  to 49 Ma  $^{40}\text{Ar}/^{39}\text{Ar}$  dates for two hypogene alunite veins, and a  $\sim 51$  Ma Re-Os pyrite date for a massive pyrite-dickite vein, may indicate a later pulse of hydrothermal activity.

A clearly defined causative intrusion has not been identified at Resolution but strong foliation defined by secondary biotite within the host diabase sills mimics the dome-shaped copper shell and is inferred to reflect stress due to emplacement of a cylindrical stock below the deepest drill holes. Unusually high hypogene copper grades reflect the presence of favorable diabase and limestone host rocks, lack of dilution by postmineral dikes, and multiple spatially overlapping mineralizing events, including the deposition of early chalcopyrite, later chalcopyrite-bornite, and still later bornite-chalcocite-digenite assemblages. The high grades may also reflect an unusually long-lived flux of ore fluids channeled through the center of the deposit by permeable breccia zones.

## Introduction

THE RESOLUTION porphyry copper-molybdenum deposit is located beneath a minimum of 1 km of postmineral cover south of the historic Magma mine in the Superior (Pioneer)

mining district, approximately 90 km east of Phoenix, Arizona (Fig. 1). The Magma mine was active until 1996 and over its life produced more than 23 Mt of ore at an average grade of 5% Cu (Hammer, 1989). The surface above the deposit is a rugged plateau at an elevation of 1,200 m located immediately east of a prominent escarpment known as Apache Leap

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FIG. 1. Location of the Resolution deposit and other porphyry-style deposits in the region.

that overlooks the town of Superior (Fig. 2). The project is owned by Resolution Copper Mining L.L.C. (RCML), which is jointly controlled by Rio Tinto (55%) and BHP Billiton (45%).

Resolution occurs within a well-known province of porphyry copper deposits, including the active Ray mine located 13 km south of Resolution, with production of 95,254 t Cu in 2010 (Grupo Mexico, 2010). Pinto Valley, 14 km to the north-east, was active as recently as 2008 with production of 39,500 t Cu (BHP Billiton, 2009) and is scheduled to restart in late 2012 (BHP Billiton website, 14 February 2012). Currently, the largest porphyry copper deposit in the region is Morenci, located ~175 km to the east with total production plus resource of 6,470 Mt at 0.52% Cu (Singer et al., 2008). By comparison, the present Inferred Resource at Resolution stands at 1,624 Mt of 1.47% Cu and 0.037% Mo (Rio Tinto, 2010).

This paper reviews the exploration history of the Resolution deposit, describes its regional geologic and metallogenic setting, and presents details of the geology, hydrothermal alteration and mineralization of the deposit as currently understood from drilling. Although the descriptions and interpretations are based primarily on in-house work completed by the authors, this paper also draws heavily on both published and

unpublished work (e.g., Hammer, 1972, 1989; Paul and Manske, 1998; Manske and Paul, 2002; Zulliger, 2007).

The discovery in 1995 of this high-grade porphyry copper deposit was unexpected, given its location within a mature porphyry copper province, especially a province that is characterized by typical hypogene copper grades of less than 0.4% Cu (Lowell and Guilbert, 1970). But in hindsight, the potential for a significant porphyry deposit under cover on the plateau above Superior is suggested by the high-grade mineralization in the Magma mine, barely 1 km to the north-north-west, and the large number of easterly trending Cu-Ag-bearing veins along the range front (Figs. 2, 3).

### Discovery and Resource Delineation

#### *Magma mine discovery and development*

Discovery of the Resolution deposit is the latest chapter in a rich history of exploration, discovery, and mining near Superior. An 86-year period of almost continuous operation began when the Silver Queen, originally staked in 1875 (Chappell, 1973), was reopened as the Magma mine in 1910. The short, irregular, supergene chalcocite ore shoots originally mined for native silver were found to change downward

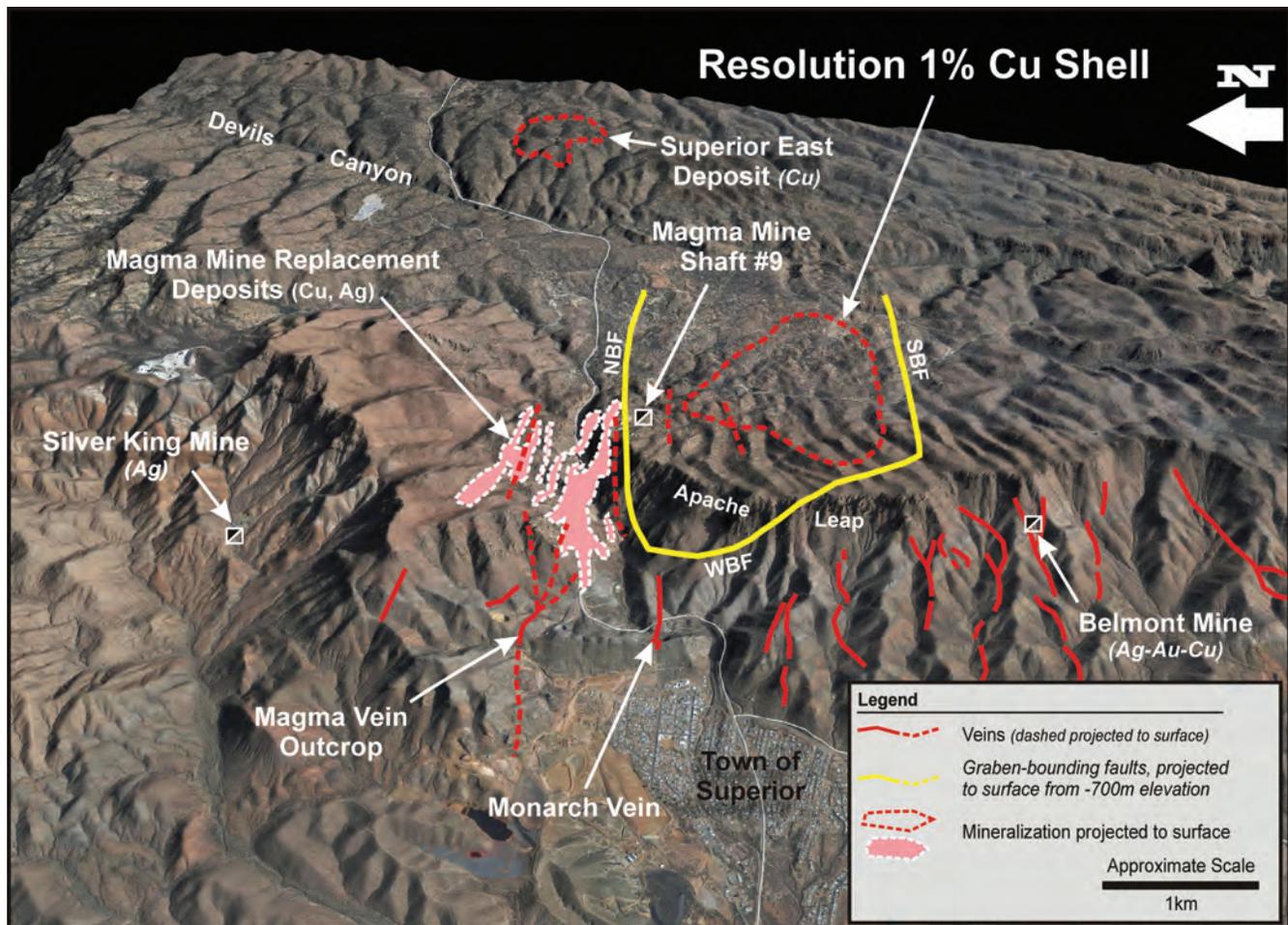


FIG. 2. Oblique view looking east, showing Resolution deposit and graben in relationship to the Magma mine to the north, and numerous veins to the west along the base of Apache Leap. Base map is satellite imagery draped on topography. The Superior East deposit is located approximately 9 km east-northeast of Superior. Scale shown is approximate in this oblique view. Abbreviations: NBF = North Boundary fault, SBF = South Boundary fault, WBF = West Boundary fault.

to more continuous hypogene chalcocite-bornite mineralization with depth (Ransome, 1912), and significant copper production began.

The Magma and related veins, which were followed along strike and mined as deep as 1,500 m below surface, constituted the principal source of ore through 1954. In 1948 manto-style copper mineralization, in what was later designated as the A-bed of the Devonian Martin Formation, was discovered while drilling for vein offsets. After delineation of this relatively shallow replacement ore (Fig. 4), production along the veins was gradually phased out and there was no production from the Magma vein after 1966 (D.F. Hammer, pers. commun., 2011). Development of the A-bed manto deposit initiated exploration that eventually discovered at least six productive horizons in the Martin, Mississippian Escabrosa, and the basal part of the Pennsylvanian Naco Formations. These exploration efforts also resulted in discovery of a previously unknown graben after underground workings crossed what was to be termed the North Boundary fault (Figs. 2–4), thus setting in motion almost 30 years of exploration efforts that would eventually result in discovery of the Resolution deposit.

#### Resolution discovery

The E-W-trending North Boundary fault (Fig. 3), which is locally mineralized and acted as a conduit for ore fluids to the mantos, juxtaposes the Paleozoic section to the north with a sequence of Cretaceous sedimentary and volcanic rocks (designated Kvs) to the south (Fig. 4). By 1966, Magma mine geologists had also identified the West Boundary fault, which delineates the western limit of Kvs. Although these two faults were estimated to have at least 750 m of displacement (Hammer, 1967), the relatively small displacement “N-S 5W” fault identified in workings to the north was determined to be a northern continuation of the West Boundary fault. The Monarch vein cropping out on the range front was identified as the westward continuation of the North Boundary fault. Hammer (1967) postulated a southern boundary fault along the eastern projection of the Belmont vein (Fig. 2), analogous to the Monarch vein and its relationship to the North Boundary fault, and suggested potential for high-grade mineralization along this southern boundary.

In a report a few years later, Hammer (1972, p. 41) suggested the “...possibility that mineralized intrusive rocks underlie

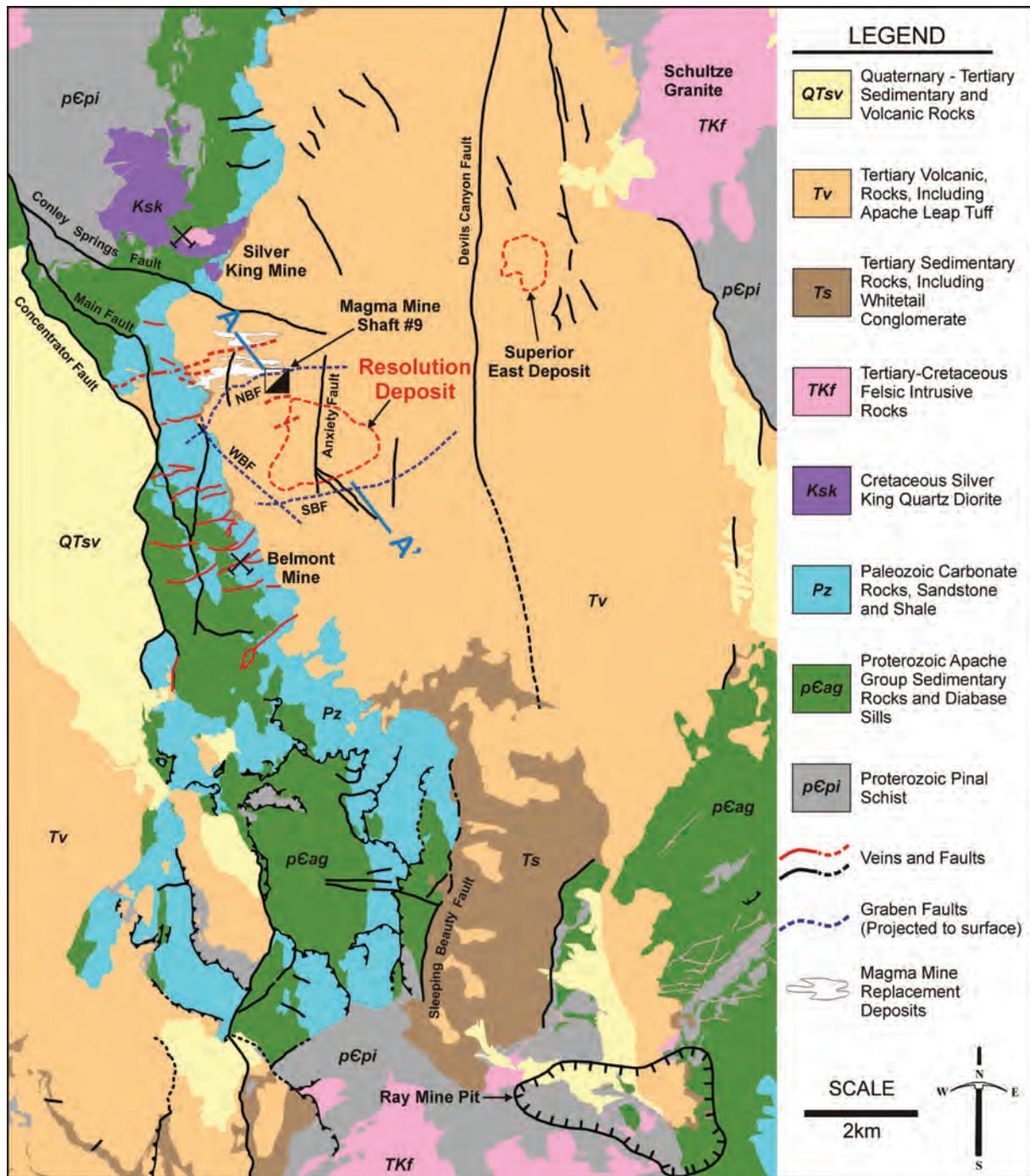


FIG. 3. Geology of the Resolution, Superior East, and Ray area, modified from Peterson (1963), Peterson (1969), Cornwall et al. (1971), and Creasey et al. (1983). For abbreviations, see Figure 2 caption.

the volcanic plateau east of the Belmont mine.” Despite recognition of this porphyry target, and a later paper suggesting an association of the magma veins and mantos with an as-yet undiscovered porphyry system (Einaudi, 1982), the focus of exploration for magma copper through the mid-1990s continued to be discovery of additional vein and replacement deposits to augment the reserves of the Magma mine (Paul and Manske, 1998). Importantly, identification of the graben and

recognition of its mineral potential resulted in acquisition of land needed to secure the eventual discovery at Resolution (Hammer, 1967).

Beginning in 1973 Magma Copper initiated surface drilling to locate the South Boundary fault by targeting photo lineaments east of the Belmont mine, but it was not until 1991 that Magma’s geologists were successful in crossing the fault and intersecting narrow chalcopyrite ± bornite veins (Manske and

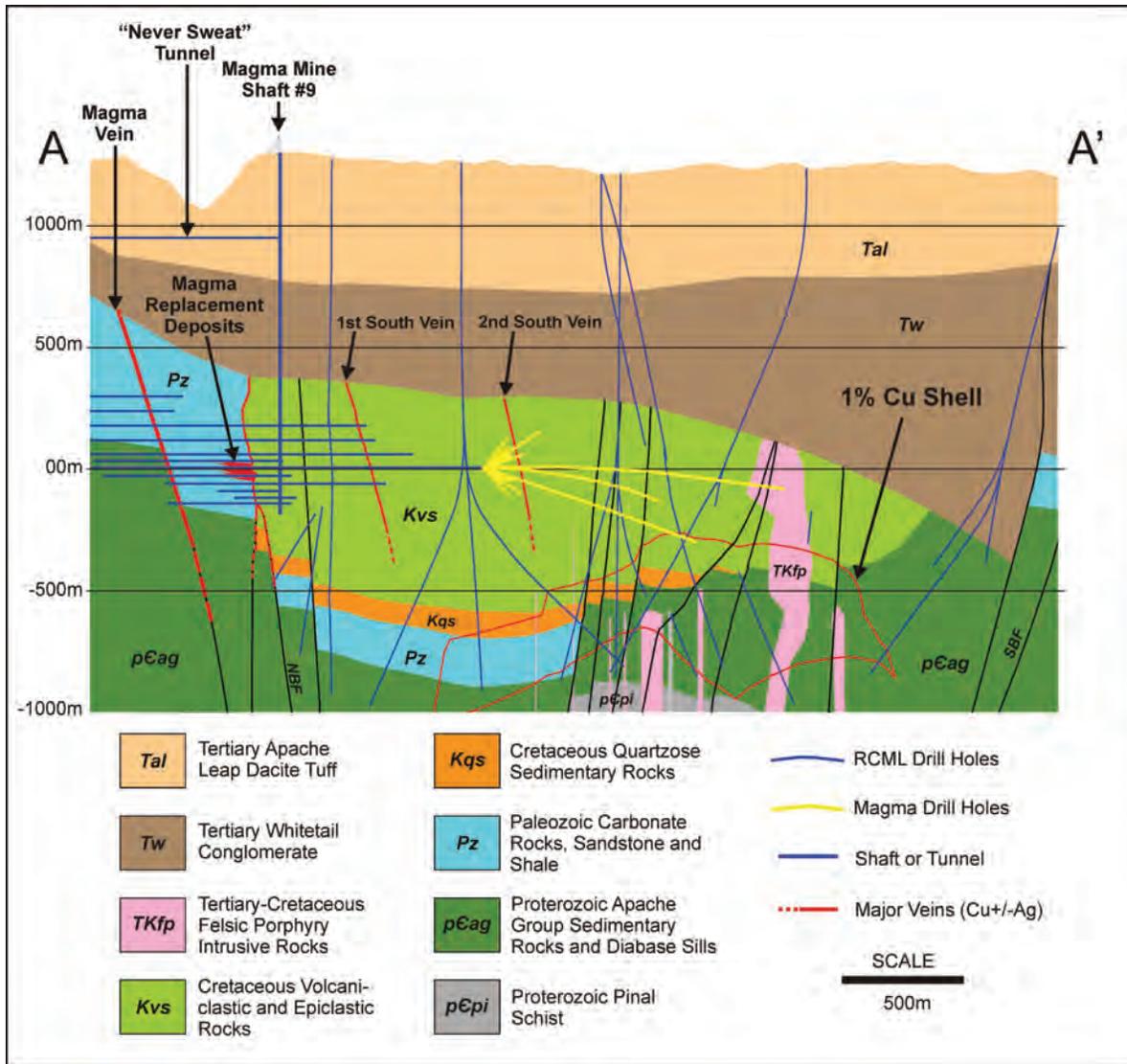


FIG. 4. Cross section of geology, looking northeast through the Magma shaft 9 and Resolution deposit. Abbreviations: RCML = Resolution Copper Mining L.L.C.; see also Figure 2 caption.

Paul, 2002). These results, along with discovery in the 1970s of the First South and Second South veins located south of the Magma shaft 9 (Fig. 4), confirmed the prospectivity of the entire graben and justified drilling hole S27E, an 1,100-m-long horizontal core hole in 1994; the hole was drilled from the southernmost workings of the Magma mine at about sea level (Fig. 4). Hole S27E intersected 460 m of quartz-sericite-pyrite-altered Cretaceous rocks that assayed 0.56% Cu, marking the discovery of the Resolution porphyry copper deposit (Paul and Manske, 1998; Manske and Paul, 2002).

Drill hole S27H, an inclined underground hole drilled a year later to follow up on S27E, bottomed in hydrothermal breccia with relict potassic alteration and stockwork chalcopyrite-molybdenite veins that assayed 1.94% Cu and 0.037% Mo over 43 m. Two additional underground holes intersected strong porphyry-style mineralization, and in 1998 two surface holes were completed. One of the surface holes, MB-20A, intersected 306 m at 1.75% Cu and 0.029% Mo, the

best intercept to that date. Despite this high-grade but deep discovery, a decision was made to pull out the water pumps and close the Magma mine in 1998. BHP entered into an exploration agreement with Rio Tinto's North American subsidiary Kennecott Exploration in April 2001.

#### Initial Kennecott drilling

Kennecott's drilling program, initiated in July 2001, was designed to test the deposit to a depth of ~2 km. To improve the odds of completing core holes to these depths, large mudrotary rigs were deployed to drill and case mother holes to ~1-km depth. After completing vertical core holes beneath each mother hole, directional drilling techniques were used to drill two to four daughter holes from each precollar. Seventeen core holes completed by January 2003, established the continuity of strong mineralization in an area at least 1 km in diameter. The best mineralized interval was 587 m and averaged 2.03% Cu and 0.036% Mo.

It was recognized during this initial phase of drilling that the upper boundary of the deposit is defined by an abrupt change from spotty mineralization averaging less than 0.5% Cu to consistent mineralization assaying >1% Cu where chemically reactive host rocks are present. Locally, a lower boundary of >1% Cu mineralization was also defined but the grade change at this boundary is more gradual. The zone enclosed by the upper and lower boundaries of >1% Cu mineralization is referred to as the “1% Cu Shell” in this paper. The outline of the 1% Cu Shell is shown in several of the maps and cross sections.

#### *Delineation drilling*

Delineation drilling commenced following completion of Order-of-Magnitude studies in 2002 and 2005, which evaluated a block-cave mining operation. As of January 2012, 76 core holes had been completed from 16 sites. Much of the deposit has now been drilled at a spacing of approximately 200 m. The current focus is to complete a nominal 150-m-spaced grid within the area expected to be mined in the first 10 years of production. Geostatistical analysis suggests that a 150-m drill spacing will allow that portion of the deposit to be upgraded to Indicated Resource status.

Currently the project is in prefeasibility stage. Construction of an 8.5-m-diameter shaft to a depth of 2 km is in progress and underground drifting at the planned production level is scheduled as part of the feasibility study. This work is designed to evaluate the geological and geotechnical models generated from surface drilling and to demonstrate the ability to safely and efficiently advance the mine headings required to bring the deposit into production.

### Regional and District Geologic Setting

#### *Regional geology*

The Resolution deposit lies within a cluster of porphyry copper deposits that is centered in east-central Arizona but extends into New Mexico and northern Mexico (Keith and Swan, 1995; Fig. 1). This porphyry copper cluster occurs in an area of complex cratonic architecture and is inferred to have overlain the subducting Farallón plate from Late Cretaceous to the Eocene. The regional geology and tectonics have been studied extensively, e.g., Titley (1982), Keith and Swan (1995), and Leveille and Stegen (2012).

#### *District geology*

The geology in the vicinity of the Resolution deposit is shown in Figure 3. The local geologic column, from oldest to youngest lithologic unit, is as follows:

*Pinal Schist:* The oldest unit, the Pinal Schist, is greenschist-facies schist developed from Paleoproterozoic turbidites (Keep, 1996). Pinal Schist hosts mineralization at the Ray mine (Phillips et al., 1974) and at Superior East (Sell, 1995). However, at Resolution the schist has been intersected in only a few of the deepest drill holes at depths below the base of the 1% Cu Shell.

*Apache Group and Troy Quartzite:* The Apache Group, a >500-m-thick sedimentary sequence of Mesoproterozoic age, disconformably overlies the Pinal Schist (Wrucke, 1989) and comprises the Pioneer Shale, Dripping Spring Quartzite,

Mescal Limestone, and basalt flows. The Troy Quartzite overlies the Apache Group in the Superior district.

*Diabase sills:* The Apache Group and Troy Quartzite are dilated by regionally extensive diabase sills dated at 1.1 Ga, which inflate the original thickness of the older Proterozoic section by up to 100% (Wrucke, 1989). The diabase sills are important host rocks for copper mineralization at both Ray (Phillips et al., 1974) and Resolution.

*Paleozoic sedimentary rocks:* The Cambrian Bolsa Quartzite and a conformable sequence composed of the Devonian Martin Formation, Mississippian Escabrosa Limestone, and Pennsylvanian-Permian Naco Group carbonate rocks overlie the Apache Group and crop out extensively west of Resolution. The carbonate units host replacement mineralization in the Magma mine (Hammer and Peterson, 1968; Paul and Knight, 1995) but are partially removed by erosion at Resolution and absent at Superior East and Ray.

*Cretaceous sedimentary and volcanic rocks:* A 1-km-thick sequence of sandstone, graywacke and volcanoclastic rocks, including minor tuff horizons, is preserved in a graben in the immediate area of the Resolution deposit (Manske and Paul, 2002; Fig. 4). This sequence is not exposed in the area of Figure 3, but when it was encountered in the Magma mine workings during the 1960s, the mine staff recognized that the lithologies were similar to Cretaceous rocks exposed in the Reed basin near the Christmas mine (Hammer, 1967). This sequence hosts the shallowest part of the Resolution deposit and is described in detail below.

*Laramide (Late Cretaceous–Early Tertiary) intrusions:* Several large Laramide plutonic bodies crop out within 20 km of Resolution. Principal among these are the Schultze Granite (Stavast, 2006); the Tortilla quartz diorite, Teapot Mountain Porphyry, and Granite Mountain Porphyry in the Ray area (Cornwall et al., 1971; Phillips et al., 1974); and the Silver King quartz diorite north of Superior (Peterson, 1969). Minor Laramide intrusions are known from drill holes at Superior East (Sell, 1995) and at Resolution, as described in the following sections.

*Tertiary sedimentary and volcanic rocks:* The Oligo-Miocene Whitetail Conglomerate, a coarse basin fill comprised of eroded fragments of all the rock types described above, occupies a basin that extends from Superior east to Globe (Sell, 1995, fig. 3). The conglomerate, which attains a thickness of >1.5 km in a half graben bounded to the east by the Devils Canyon fault, contains abundant exotic copper as native copper and cuprite. The Whitetail Conglomerate is largely covered by the 500-m-thick Miocene Apache Leap dacitic tuff, which forms the prominent volcanic plateau that covers the Resolution and Superior East deposits and extends south to Ray.

#### *Structural geology*

An old, NE- to E-NE-trending structural fabric in east-central Arizona is indicated by the dominant foliation in Pinal Schist, the northeast trend of the 1.4 Ga Ruin Granite (Creasey, 1980), and regional scale magnetic anomalies (U.S. Geological Survey, 2002). This E-NE trend is also indicated by the distribution and elongation of Laramide intrusions, the distribution of mineral deposits, and the orientation of veins and dikes, as reported by Heidrick and Titley (1982). In the

Superior area, the Magma vein and related veins, the First South and Second South veins, and most of the veins below Apache Leap show an E-W to E-NE trend.

Faulting typical of Laramide-aged deformation is well documented in the region. Thrust faults are mapped in Telegraph Canyon, southwest of Superior, and near Ray (Richard and Spencer, 1998), and Laramide-aged reverse movement is described along the N-NE-trending Sleeping Beauty fault north of Ray (Keith, 1986). The Elm Canyon Overthrust (Short et al., 1943) is located at the base of Apache Leap.

Extending north and south of the town of Superior is a 25-km-long belt of well-exposed, early Proterozoic through Paleozoic-aged strata, which dip 25° to 45° E. Drilling confirms that these strata continue at depth under the eastward-thickening Whitetail Conglomerate. Oriented drill core demonstrates that bedding attitudes in Whitetail Conglomerate increase progressively downsection from almost flat near the base of the Apache Leap tuff to ~25° to the east-northeast near its base. East of the Devils Canyon fault, a 500-m-thick section of Whitetail Conglomerate is deposited directly on Pinal Schist. Stratigraphic relationships suggest that the Devils Canyon and related faults accommodated at least 1,800 m of down-to-the-west displacement and rotated a block that encompasses the Resolution deposit by ~25° to the east-northeast.

East of Devils Canyon, extending at least to the Globe mining district, mapping and drilling document major N-S-striking normal faults, which exhibit mainly down-to-the-east displacement. Maher (2008) has shown that these faults are part of a sequence of faults that have resulted in hyperextension and dismemberment of the Miami-Inspiration porphyry copper system.

The present-day geomorphology of the Superior district and immediate surrounding area can be attributed to N- to NW-trending, down-to-the-west, Basin and Range-style normal faults with Tertiary to Quaternary movement. These include the Concentrator, Main, and Conley Springs faults (Fig. 3). The Concentrator fault displaces the Magma vein to an as yet unknown location and defined the western limit of production in the Magma mine.

### Geology of the Resolution Deposit

The following description of the geology and structure within the Resolution deposit builds on the remarkably complete foundation provided by Manske and Paul (2002), considering the limited drill information that was available at the time. Unsurprisingly, additional deeper drilling has revealed even more complexity than they envisioned. This deeper drilling has also shifted emphasis to the Precambrian rocks which are now known to host more than half of the deposit.

#### *Proterozoic rocks*

Pinal Schist is intersected in several deep drill holes below the 1% Cu Shell (Figs. 4, 5). Less than 25 m of siltstone of the Pioneer Formation, the base of the Apache Group, overlies the Pinal Schist, above which it is intruded by a thick (>200 m) diabase sill (the lower sill). Remnants of Pioneer Formation in the lower section of the sill occur as thin, discontinuous lenses of siltstone. The lower sill appears to have preferentially intruded the paraconformable contact between the Pioneer Formation and Dripping Spring Quartzite, as its upper

contact is normally along the basal Barnes Conglomerate member of the Dripping Spring Quartzite, a well-rounded quartz cobble conglomerate which is an infallible marker horizon readily distinguished in drill core. A thick (>100 m) section of the Dripping Spring Quartzite overlies the Barnes Conglomerate member, comprising a lower unit of medium- to coarse-grained quartz and feldspathic arenite and an upper unit of interbedded feldspathic siltstone and fine- to medium-grained quartz and feldspathic arenite. A relatively continuous diabase sill (the middle sill) has intruded the upper unit of the Dripping Spring Quartzite, its upper contact commonly near the paraconformable contact between the upper Dripping Spring Quartzite and the Mescal Limestone, the latter having been intruded by additional discontinuous sills. Basalt flows overlying the Mescal Limestone have only been preserved near the South Boundary fault, and the Troy Quartzite is not present within the graben.

#### *Paleozoic sedimentary rocks*

Within the graben, the Paleozoic section has been significantly attenuated, and in some areas, completely removed by erosion (Figs. 4, 5). Less than 50 m of Bolsa Quartzite, a medium- to coarse-grained quartz arenite, disconformably overlies diabase in the north and western sectors of the down-dropped block, succeeded upwardly by the Martin Formation and eroded remnants of the Escabrosa Limestone. The Martin Formation and Escabrosa Limestone are altered to skarn in all areas of the down-dropped block tested by drilling. Quartz sandstone beds 30 to 40 m above the base of Martin Formation can be recognized in drill core, providing the only marker horizon discernible in the skarn. The maximum thickness of skarn is approximately 200 m, less than the cumulative thickness of the Martin Formation and Escabrosa Limestone in nearby outcrop, suggesting that the Pennsylvanian Naco Group has been completely eroded within the graben.

#### *Cretaceous volcanic and sedimentary rocks*

Cretaceous sedimentary, volcanoclastic, and volcanic rocks host the uppermost 17% (by wt) of material within the 1% Cu Shell and host almost the entire advanced argillic zone. The Cretaceous section is divided into two units, Kqs and Kvs. Two subunits are recognized in the Kvs but the transition between these units is poorly understood and not interpreted on cross sections. They therefore share the Kvs label.

*Quartzose sandstone (Kqs):* The basal Cretaceous section comprises interbedded quartzose sandstone and siltstone up to 150 m thick lying on the Paleozoic or Precambrian formations with a slight angular unconformity. This unit is absent from the southern and eastern sectors of the graben (Fig. 4). U-Pb ages for sedimentary zircons from the sandstone define a maximum age of ~97 Ma (Table 1; Zulliger, 2007).

*Andesitic volcanoclastic rocks (Kvs):* The andesitic Kvs unit is restricted to the west and northwest sector of the graben and comprises a sequence of up to 1 km of graywacke, conglomerate, and lesser lava flows and tuff (Schott, 1994; Manske and Paul, 2002; Ballantyne et al., 2003; Zulliger, 2007). The upper part of the section is dominated by andesitic to basaltic volcanoclastic rocks, whereas the lower part has a transition into discontinuous conglomerate beds containing cobbles of quartzite with less common limestone cobbles; clasts of Pinal

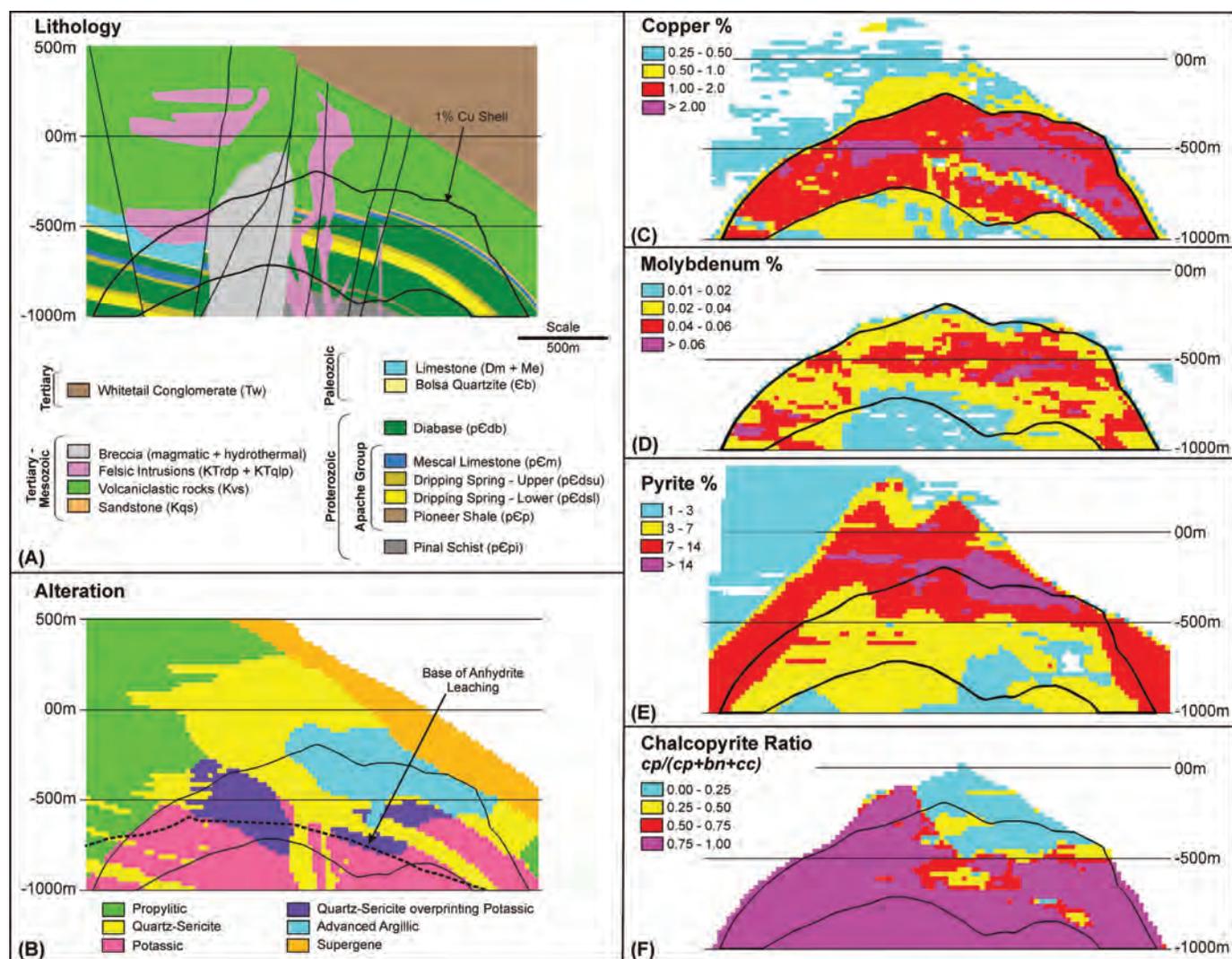


FIG. 5. Section through the Resolution deposit looking northwest. A. Geology. B. Alteration from the block model. C. Copper grade from the block model. D. Molybdenum grade from the block model. E. Pyrite wt % from the block model. F. Chalcopyrite ratio:  $[cp/(cp + bn + cc)]$  from the block model, clipped to 0.5 % Cu grade-limiting shell.

Schist are rare or absent within the volcanoclastic section. Andesite lava flows are present near the base of the Kvs in the southwest sector. U-Pb dates for zircon from two separate interbedded tuffaceous units within ~250 m of the pre-Whitetail Conglomerate paleosurface demonstrate that most of this sequence is older than ~74 Ma. A 75 Ma primary biotite  $^{40}\text{Ar}/^{39}\text{Ar}$  age and a 74 Ma U-Pb zircon age (Table 1) from intrusions in the Silver King area (Figs. 2, 4) suggest that a volcanic center in the Silver King area may have been a source area for the andesitic Kvs.

**Felsic volcanic rocks (Kvs):** A voluminous sequence of dacitic to rhyodacitic tuffaceous rocks dominates the eastern and southern parts of the graben. Notably, these rocks lie on thinned Kqs or unconformably on Proterozoic formations. The volcanic rocks are characterized by clasts of schist, quartzite and, less commonly, diabase and quartz-phyric porphyry, in a tuffaceous matrix composed of broken quartz and feldspar crystals. Upper sections of the sequence are typically matrix dominated while lower sections tend to comprise

coarser clast-supported units of identical composition with local fine-grained tuffaceous interbeds. The felsic volcanic rocks are interpreted by R.H. Sillitoe (pers. commun., 2006) to represent phreatomagmatic eruption products from one or more nearby diatreme vents. Four U-Pb dates from a variety of lithofacies range from 67 to 66 Ma, demonstrating a younger age than the andesitic volcanoclastic rocks to the north and west (Table 1; Zulliger, 2007).

#### Laramide intrusive rocks

Laramide intrusive rocks host 15% of the material within the 1% Cu Shell. These intrusions are considered to be predominantly pre- to early mineral, as they are not observed to cut early quartz-molybdenite or younger veinlets. The intrusions are mostly present within a 1,000-m-wide, E-NE-trending corridor through the center of the deposit. Three intrusive rock types have been identified based on phenocryst assemblages. U-Pb dates from six intrusive rock samples have yielded dates ranging from 69 to 64 Ma, confirming the close

TABLE 1. Radiometric Ages for Superior District Samples

Sample ID	Description	Age (Ma)	Error (2σ)	Laboratory <sup>3</sup>
U-Pb ages for zircons in stratified rocks				
RESSA, 1824.68-1824.86 m	Detrital zircons in Kqs	96.8	2.2	ALC
RES23, 972.3-973.2 m	Zircon in andesitic Kvs	74.1	2.4	ALC
RES24, 824.6-826.2 m	Zircon in andesitic Kvs	74.1	1.2	ALC
RES3, 1205.04-1218.16 m	Zircon in lapilli-crystal tuff in felsic Kvs	67.8	2.3	ALC
RES1, 988.20-1000.91 m	Zircon in lapilli tuff in felsic Kvs	67.6	1.3	ALC
RES2B, 1571.30-1584.45 m	Zircon in lapilli-crystal-lithic tuff in felsic Kvs	67.1	2.3	ALC
RES5D, 1443.49-1456.56 m	Zircon in lapilli-crystal-lithic tuff in felsic Kvs	66.4	1.1	ALC
<sup>40</sup> Ar/ <sup>39</sup> Ar ages for biotite in Silver King Diorite				
SK3, 491447E, 3687589N	Primary biotite in quartz diorite at Silver King mine	74.83	0.33	NMGRL
U-Pb ages for zircons in intrusions				
SK1, 492021E, 3687682N	Zircon in sericitized KTqpl dike at Silver King mine	73.6	1.6	ALC
RES5B, 2086.00-213.15 m	Zircon in eastern KTrdp stock	69.3	1.1	ALC
3653A, RES#3 <sup>1</sup>	Zircon in premineral dike in Magma vein	69.1	4.0	ALC
RES20, 1177.0-1177.5 m	Zircon in KTqpl dike with rare quartz eyes	67.9	1.3	ALC
RES3, 1133.26-1145.56 m	Zircon in KTrdp with K-feldspar megacrysts	67.0	1.7	ALC
RES17F, 1687.0-1688.0 m	Zircon in KTqpl dike with sparse quartz eyes	66.4	0.6	ALC
RES#5, 492016E, 3683628N <sup>1</sup>	Zircon in a KTqpl dike cutting Naco Lst in Queen Creek	66.2	0.8	ALC
S27E, 210.3 m <sup>1</sup>	Zircon in KTrdp dike cutting Kvs	65.0	0.7	ALC
RES2A, 2237.6-2238.7 m <sup>1</sup>	Zircon in coarse-grained KTrdp below 1% Cu shell	64.1	1.9	ALC
A4, 2017.37 m <sup>1</sup>	Zircon in KTrdp dike within Superior East deposit	63.8	1.2	ALC
Re-Os ages for molybdenite in veins				
RES1B, 1825.60-1825.67 m	Quartz-moly vein cutting breccia	65.1	0.3	AIRIE
RES3B, 1551.5-1551.7 m	Banded quartz-moly vein cutting felsic Kvs	64.9	0.2	AIRIE
RES5B, 2082.10-2082.20 m	Quartz-moly vein in eastern KTrdp stock	63.9	0.2	AIRIE
<sup>40</sup> Ar/ <sup>39</sup> Ar ages for biotite in altered rocks				
RES7A, 2251.0-2251.1 m	Biotite replacing mafic minerals in diabase	63.53	0.38	PCIGR
RES1B, 1733.6-1733.7 m	Biotite in matrix of hydrothermal breccia	63.19	0.39	PCIGR
RES2A, 2237.6-2238.7 m	Biotite phenocrysts in coarse-grained KTrdp below 1% Cu shell	63.10	0.11	NMGRL
Highway 177, 490923E, 3682389N	Biotite clots along a vein in Mescal Limestone	62.30	0.15	NMGRL
RES5, 1806.2-1806.3 m	Biotite in matrix of hydrothermal breccia	62.05	0.34	PCIGR
<sup>40</sup> Ar/ <sup>39</sup> Ar ages for sericite in altered rocks				
RE5D, 1704.0-1704.1 m	Muscovite after biotite in KTrdp with quartz-sericite alteration	63.25	0.46	PCIGR
RES2A, 2215.4 m	Sericite in KTrdp with potassic alteration, phyllic overprint	62.85	0.30	NMGRL
RES7B, 2051.1-2051.2 m	Sericite in breccia with quartz-sericite alteration	61.95	0.34	PCIGR
RES5B, 2103.0-2103.1 m	Sericite in KTrdp with quartz-sericite alteration, adv. argillic overprint	61.93	0.34	PCIGR
<sup>40</sup> Ar/ <sup>39</sup> Ar ages for alunite in veins and a breccia				
RES3, 1275.34 m	Alunite in Kvs	62.3	0.4	PCIGR
RES3, 1275.34 mR	Alunite in Kvs	61.67	0.36	PCIGR
RES9J, 1378.3-1378.5 m	Quartz-alunite-chalcocite-digenite veinlets in feldspathic Kvs	61.3	1.8	NMGRL
RES15A, 1601.8-1602.0 m	Fine-grained alunite-dickite-kaolinite as breccia infill in KTrdp dike	60.4	1.2	NMGRL
RES5H, 1742.9-1743.0 m	Hypogene alunite vein in eastern KTrdp stock	51.67	0.29	PCIGR
RES5H, 1742.9-1743.0 mR <sup>2</sup>	Hypogene alunite vein in eastern KTrdp stock	51.22	0.49	PCIGR
RES13, 1968.18 m	Hypogene alunite vein in eastern KTrdp stock	49.46	0.57	PCIGR
RES13, 1968.18 mR <sup>2</sup>	Hypogene alunite vein in eastern KTrdp stock	49.39	0.38	PCIGR
Re-Os ages for pyrite in late veins in Kvs				
RES9J, 1389.0-1389.1 m	Massive pyrite vein with dickite infill in Kvs	51.4	0.2	AIRIE
RES9J, 1394.1-1394.2 m	Massive pyrite vein with dickite infill in Kvs	22.97	0.10	AIRIE
RES9J, 1394.1-1394.2 mR <sup>2</sup>	Massive pyrite vein with dickite infill in Kvs	22.77	0.08	AIRIE
<sup>40</sup> Ar/ <sup>39</sup> Ar ages for sanidine within Whitetail Conglomerate				
RES21, 1789.8-1790.1 m	Sanidine in Tw in airfall tuff 80 m above base	24.29	0.12	NMGRL
RES20, 757.0-758.0 m	Sanidine in Tw in airfall tuff 170 m above base	21.97	0.06	NMGRL
<sup>40</sup> Ar/ <sup>39</sup> Ar ages for igneous biotite within Whitetail Conglomerate				
RES11, 651.55-651.66 m	Biotite in Tw in fine volcanic sediment 350 m above base	21.77	0.32	AIRIE

<sup>1</sup> Age from Seedorff et al. (2005b)<sup>2</sup> "R" following a sample ID indicates a repeated age determination on the same concentrate<sup>3</sup> Abbreviations: ALC = Arizona LaserChron Center at University of Arizona, AIRIE = AIRIE Program at Colorado State University, PCIGR = Pacific Center for Isotopic and Geochemical Research at University of British Columbia, NMGRL = New Mexico Geochronology Research Laboratory at New Mexico Institute of Mining and Technology; Kqs = quartzose sandstone, KTrdp = rhyodacite porphyry, KTqpl = quartz latite porphyry, Kvs = andesitic/felsic volcanoclastic rocks, Tw = Whitetail Conglomerate

temporal relationship with the felsic Kvs volcanic rocks (Table 1; Seedorff et al., 2005b; Stavast, 2006; Zulliger, 2007).

*Rhyodacite porphyry (KTrdp)*: Rhyodacite porphyry, the most voluminous of the Laramide intrusive rock types, forms a stock-like body (~400 × 400 m) in the eastern part of the deposit and a smaller stock (~200 × 200 m) to the west, as well as dikes and lesser sills throughout the deposit. Typically, phenocrysts of quartz, plagioclase, K-feldspar, and lesser biotite make up 50% of this rock and are set in an aphanitic groundmass. A distinctive variant of the rhyodacite porphyry is characterized by K-feldspar phenocrysts up to 30 mm in length. Cross-cutting relationships between the K-feldspar megacryst-bearing variant and other variants have not been observed as yet.

*Quartz latite porphyry (KTqlp)*: Quartz latite porphyry is less voluminous than rhyodacite porphyry and occurs only as dikes. This rock type has fewer quartz phenocrysts than the rhyodacite. Where less intensely altered, quartz, plagioclase, and lesser biotite and hornblende are present as phenocrysts, but the matrix has commonly been variably altered to biotite, coarse to fine quartz, and white phyllosilicate minerals. Quartz latite dikes are locally observed to truncate early quartz-only veins present in rhyodacite porphyry.

*Latite porphyry (KTlp)*: Latite porphyry is present only as minor dikes. This porphyry has a high proportion of feldspar phenocrysts to matrix, and hence a crowded texture when compared to the other dikes and exhibits a notable absence of quartz phenocrysts. The latite porphyry has not been observed in contact with other Laramide intrusions.

### Breccias

Two variable heterolithic fragmental units have been identified at Resolution and together host ~10 vol % of the mineralization within the 1% Cu Shell. These breccias lie within the same E-NE-trending corridor that contains the Laramide intrusions. Quartz-phyric porphyry occurs both as clasts in the breccias and as dikes which crosscut the breccias, temporally bracketing breccia formation (R.H. Sillitoe, pers. commun., 2006).

*Hydrothermal breccia*: Two main bodies of hydrothermal breccia occur within the deposit, a 500- × 100-m east-west body wrapping around the northern margin of the eastern rhyodacite porphyry stock and a discrete 400- × 200-m pipe-like body in the southwest sector. Both bodies may be either clast or matrix supported and contain subangular to subrounded clasts of all of the Precambrian to Paleozoic lithologies seen in the deposit. The most common clast type is typically the rock unit adjacent to the breccia, so the breccias maintain the local stratigraphy in a gross sense. Nonetheless, a few large clasts have been noted tens of meters above or below their original stratigraphic position. At lower elevations the breccia matrix contains abundant fine-grained secondary biotite with lesser quartz + anhydrite ± rutile. Locally quartz-only vein fragments and clast-restricted, early quartz-only veins suggest an early mineral timing (J.M. Proffett, pers. commun., 2001; Zulliger, 2007).

*Intrusion breccia*: This breccia is characterized by an igneous matrix that is texturally and compositionally similar to rhyodacite porphyry; the breccia bodies locally appear to grade into coherent rhyodacite porphyry. Apache Group sedimentary rocks, Proterozoic diabase and schist are all common clast types. The intrusion breccia is typically clast supported,

forming small, sporadic, irregularly shaped bodies. Zulliger (2007) suggested that the breccias may be feeders for the felsic tuffs within the Kvs sequence. Because these igneous breccias are normally dominated by siliceous rock types, they tend to have lower copper grades than the hydrothermal breccia. Intrusion breccia locally contains clasts of hydrothermal breccia, indicating a younger age for the intrusion breccia.

Another type of hydrothermal breccia has been distinguished but it is volumetrically minor. In these breccias, clasts containing truncated quartz-molybdenite veins are in turn cut by quartz-molybdenite veins, thus assigning an intraquartz-molybdenite-stage timing to their formation. Small bodies of hydrothermal crackle breccia, with fragments that have not been rotated, also occur within various rock types throughout the deposit.

### Postmineral sedimentary and volcanic rocks

*Whitetail Conglomerate (Tw)*: Whitetail Conglomerate forms a NE-thickening sequence of predominantly poorly sorted conglomerates up to 1.3 km thick overlying the deposit. A basal ferricrete member (Manske and Paul, 2002) comprises detritus primarily from the immediately underlying leached capping and may attain a thickness of up to 60 m. New high-precision biotite and sanidine  $^{40}\text{Ar}/^{39}\text{Ar}$  age determinations for samples from interbedded tuffs in the lower to middle sections of the conglomerate range from  $24.29 \pm 0.12$  to  $21.77 \pm 0.32$  Ma (Table 1).

*Apache Leap tuff (Tal)*: The Miocene Apache Leap tuff is a biotite-phyric dacite ash-flow tuff that is 350 to 500 m thick above the deposit and dips ~12° to the northeast. Pumice fragments are progressively flattened with depth (Peterson, 1961). The Apache Leap tuff has been dated by the  $^{40}\text{Ar}/^{39}\text{Ar}$  method to be 18.6 Ma (Ferguson et al., 1998).

### Structure

The E-NE-trending North Boundary fault is one in a series of at least three parallel faults bounding the graben on the north. In the northwest portion of the graben, the North Boundary fault and related faults displace the base of Paleozoic strata by ~500 m (Fig. 4), but because of differential erosion of the Paleozoic section within the graben, faulting accommodates ~1 km of Cretaceous strata.

Intercepts of the West Boundary fault from three recently completed geotechnical drill holes provide data along 1.5 km of strike and define a southeasterly strike and a dip of ~85° to the southwest. Displacement along the West Boundary fault is not well constrained, but ~1 km of Cretaceous strata are preserved east of the fault. Drilling within the graben documents a dramatic thinning of these Cretaceous strata from west to east, with less than 300 m of Kvs strata and no Kqs present in the eastern part. Because the North and West Boundary faults do not continue with such significant offsets outside the graben, they appear to be linked kinematically.

Resolution Copper Mining has not completed any drill holes across the deeper portions of the South Boundary fault. As described by Paul and Manske (1998), the South Boundary fault is a 120- to 150-m-wide complex fault zone with major fault strands on the hanging-wall and footwall sides, dipping northward at 60° to 90°. Fault offsets are less well constrained but are similar to those along the North Boundary fault.

Determining the detailed structural geology within the deposit is challenging because the deposit is known only from drilling. Most faults within the deposit are inferred based on stratigraphic offsets in adjacent drill holes but critical additional support comes from oriented drill core. More than 50,000 orientations for bedding, stratigraphic and igneous contacts, faults, discrete shears, slickenside lineations, joints, and foliation have been recorded in drill core, many of them with the aid of an acoustic bore hole imaging tool. Orientations for key structure types within the immediate deposit area are summarized in the stereonet of Figure 6.

Most faults within the graben strike north to north-northeast, dip steeply west, and show down-to-the-west displacement. These conclusions are confirmed by pole plot clusters for 1,650 slickensided shears, and lineations along those shears, recorded in oriented core (Fig. 6B, C). Uplift on the east side of the N-trending faults has resulted in significant to complete removal of the Paleozoic section in the east-central portion of the deposit (Fig. 5A). Changes in the thickness of

diabase sills across some of the N-trending faults suggest they originated as much older inflation faults that served as plumbing for the diabase sill complex. None of the northerly trending faults described here has been shown to have significant offsets outside the graben.

A prominent fault that trends east-west through the middle of the deposit has been intruded by rhyodacite porphyry forming a dike. This fault is interpreted as a strike-slip fault accommodating dilation and intrusion. Although postmineral faults clearly cut the deposit, the continuity of grade and alteration style across these structures (Fig. 5B-F) suggests that any postmineral offset is modest.

### Hydrothermal Alteration

#### *Potassic alteration*

Potassic alteration of variable intensity affects at least 5 km<sup>3</sup> of rock (2 × 2.5 km in plan × 1 km depth) within and surrounding the Resolution mineralization, extending to the

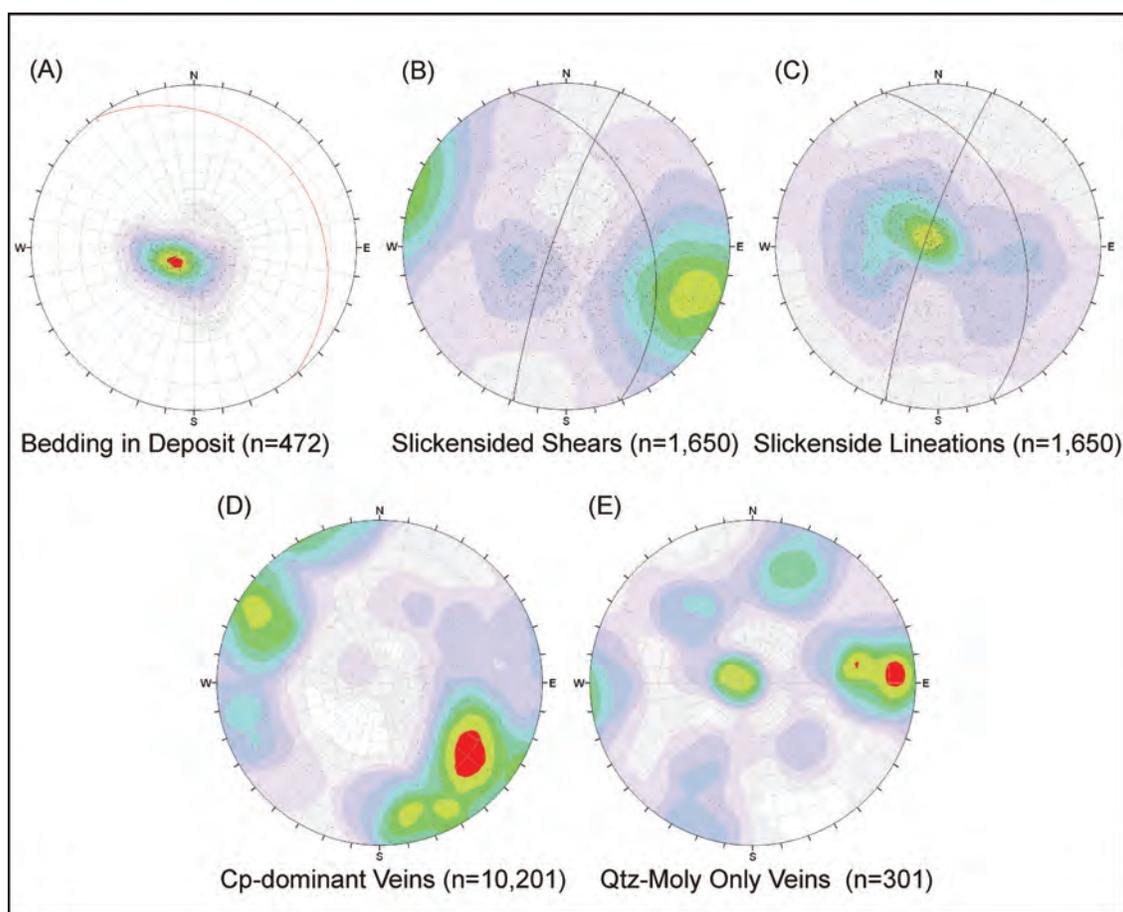


FIG. 6. Lower hemisphere equal-area projections, showing pole plots and great circles of features measured in oriented core. Contours from Fisher probability fields calculated using the Kent distribution method and a 5% area counting circle using the “Dips” software. A. Stereonet showing bedding attitudes within the 1% Cu shell. Data show modest average north-east dip. B. Stereonet of slickensided shears showing dominance of steep W dipping faults with a smaller cluster of E-NE-dipping features that represent parallel shears. C. Pole plot of lineation orientation with great circles representing slickensided shears from (B). Data show that lineations are primarily along the main trend of N-NE-striking high-angle faults, and that the recorded movement along these faults is primarily dip-slip. D. Pole plot of veins containing chalcopyrite as the dominant copper-bearing mineral, showing variable orientation but steep average dip and a northeast strike. E. Pole plot of quartz-molybdenite veins, showing variable orientation with steep average dip and northerly strike.

northern and southern boundary faults of the graben (Figs. 3, 4). Secondary biotite is intensely developed in diabase, comprising up to 46% of the rock, and to a much lesser extent in porphyry intrusions, quartzose sedimentary rocks, and Kvs. K-feldspar alteration is more prevalent in porphyry intrusions and Kvs than in diabase. Anhydrite is a major component of the potassic alteration assemblage in the core of the system but has been dissolved by ground water above a surface dipping 20° to the east-northeast that cuts across the 1% Cu Shell (Fig. 5B). Hydrothermal magnetite is common on the southern and northwestern flanks of the deposit but scarce elsewhere.

Potassic alteration is pervasive in the deeper zones of the deposit where hydrothermal biotite and K-feldspar survived subsequent hydrolytic alteration events. In addition, cryptic K-feldspar alteration, recognizable with sodium cobaltinitrite staining, is widespread in rocks affected by epidote and chlorite alteration in the propylitic zone (see below). Potassically altered diabase contains lower concentrations of Ca, Fe, Na, Ti, and Mn, and higher concentrations of K, S, As, Ag, Au, Cu, and Mo, relative to unaltered diabase (Table 2).

A general sequence of veining has been deciphered for the numerous vein types associated with potassic alteration. Early green biotite-anhydrite veinlets with brown biotite halos (present in diabase) are cut by quartz-anhydrite veins with variable amounts of biotite, chalcopyrite, pyrite (or) bornite, magnetite, and, locally, traces of molybdenite and carbonate. In diabase from the southern sector of the deposit, veins from this stage are strongly rich in magnetite. Next, chalcopyrite-rich quartz-anhydrite veins with variable amounts of K-feldspar, biotite, sericite, and molybdenite were emplaced, followed by the main molybdenite-bearing stage of quartz-anhydrite veins which also contain variable amounts of chalcopyrite, K-feldspar, biotite, and sericite; both vein types locally contain pyrite or bornite.

An episode of synmineralization ductile deformation occurred during the late stages of potassic alteration (Ballantyne et al., 2003). This deformation is expressed as a generally shallowly dipping (after correcting for 25° ENE postmineral tilt),

planar foliation of grains, and patches of secondary biotite, and as sympathetic folding and boudinage of the veins described above (Schwarz, 2010). In hydrothermal breccia, foliation is also manifested as rotation and alignment of elongate clasts; secondary biotite grains in diabase clasts are all aligned with the foliation. This ductile deformation, only observed to affect diabase and hydrothermal breccia, is most intense in the central part of the deposit and is interpreted as the product of local strain imposed by the intrusion of a roughly cylindrical stock inferred at depth, with attendant volume expansion of rock undergoing hydrothermal alteration below the brittle-ductile transition (Fournier, 1999). The phenomenon is particularly well developed at Resolution due to the ductile nature of the intensely biotite-altered diabase, which promoted plastic deformation under stress conditions that would have caused brittle deformation in the siliciclastic and volcanoclastic rocks encasing it.

#### *Propylitic alteration*

The Resolution deposit is surrounded by a halo of propylitic alteration defined by mineral assemblages including chlorite and epidote (Fig. 5B). In a few distal holes, epidote is absent but calcite is present, suggesting that a chlorite-calcite subzone may lie between rocks containing epidote and unaltered rock. On the southern margin of the deposit, potassic alteration in diabase was preceded by an alteration episode where pyroxene and hornblende were replaced by amphibole and magnetite, and, locally, veins of actinolite, quartz, and magnetite are present. However, a continuous, actinolite-bearing subzone has not been recognized between the potassic and propylitic zones. At its inner edge, the chlorite-epidote zone gives way to pervasive quartz-sericite-pyrite alteration at higher elevations and to rocks with strong secondary biotite alteration at depth.

Albite has not been noted petrographically in the chlorite- and epidote-bearing rocks at Resolution, but K-feldspar is abundant. The K-feldspar, which locally constitutes more than 25% of the rock volume, commonly occurs as small equant, untwinned grains in the groundmass but also occurs with epidote in former plagioclase sites and in quartz-carbonate-epidote veins. As shown by the data in Table 2, propylitized diabase contains lower concentrations of Ca, Fe, and Na and higher concentrations of K, S, Ag, As, Au, Cu, Mn, Pb, and Zn than unaltered diabase. These variations are similar to those reported for other porphyry copper deposits (e.g., Panguna; Ford, 1978), except for the atypically high potassium in the propylitic zone at Resolution.

The outer boundary of the pyrite halo lies within the chlorite-epidote zone, and pyrite abundance increases strongly inward across the zone. Manganese oxides are particularly common within the chlorite-epidote zone immediately outside the pyrite halo. Hematite is common within the chlorite-epidote zone, both within and outside the pyrite halo. Quartz veins are scarce within the propylitic zone, but narrow quartz-epidote-carbonate veins are present and locally contain various combinations of pyrite, chalcopyrite, galena, and sphalerite.

#### *Quartz-sericite-pyrite alteration*

Quartz-sericite-pyrite alteration overprints potassic alteration at depth and propylitic alteration laterally and is overprinted

TABLE 2. Compositional Variation in Diabase

Sample ID	Unaltered	Potassic	Propylitic	Quartz-sericite	Adv. argillic
From (m)	16, 20	RES-002A	RES-016	RES-017G	RES-017A
Length (m)	N/A	1825.55	1195.90	1669.90	1750.30
		146.45	32.20	41.43	37.90
Al (%)	7.03	5.98	6.04	5.70	7.66
Ca (%)	5.36	2.51	2.93	0.10	0.23
Fe (%)	9.90	6.78	6.54	5.80	4.92
K (%)	1.91	3.61	4.62	3.30	3.17
Mg (%)	2.65	2.63	3.06	0.60	0.53
Na (%)	2.20	0.16	0.10	0.05	0.06
S (%)	<0.01	5.28	2.81	6.40	6.12
Ti (%)	0.99	0.37	0.60	0.50	0.71
Ag (ppm)	<0.05	1.06	5.75	1.80	4.36
As (ppm)	2.2	2.6	10.2	69.3	31.3
Au (ppb)	2	31	188	36	146
Cu (ppm)	109	12939	650	16802	31298
Mn (ppm)	1588	411	3173	77	40
Mo (ppm)	1	142	1	278	859
Pb (ppm)	12	4	276	<3	35
Zn (ppm)	95	83	1398	20	136

by advanced argillic assemblages in the upper levels of the Resolution system. In areas tested by drilling, quartz-sericite-pyrite alteration overprints a large volume of the potassic alteration and some of the propylitic alteration. The remaining volume of pervasive quartz-sericite-pyrite alteration exceeds 1 km<sup>3</sup>; however, a large additional volume has probably been removed by erosion because quartz-sericite-pyrite alteration (Fig. 5B) is extensive at the pre-Whitetail Conglomerate erosion surface (Fig. 5A).

Quartz-sericite-pyrite alteration affects all premineral units within the deposit to varying degrees but is best developed in the Cretaceous and uppermost Proterozoic units. The siliceous rock types (Dripping Springs Quartzite, Bolsa Quartzite, Kqs, KTqlp, and KTrdp) are preferentially altered to quartz-sericite-pyrite at deeper levels.

Sericite in the Resolution deposit is mostly a moderately phengitic muscovite. Shortwave infrared spectroscopic analysis by CSIRO's HyChips™ system indicates that the most common location for the Al-OH peak for white mica in Resolution samples lies at about 2,207 nm, i.e., closer to end-member muscovite (2,200 nm) than to phengite (2,220 nm). Spatial zoning of sericite compositions has not been demonstrated to date.

The quartz-sericite-pyrite alteration in the Resolution deposit occurs as quartz-pyrite ± Cu sulfide veins with texturally destructive sericite halos, i.e., D-type veinlets (Gustafson and Hunt, 1975), and can be sufficiently intense so as to completely obliterate protolith textures. Massive and/or pervasive silicification is uncommon. Quartz-sericite-pyrite alteration is accompanied by minor fluorite, anhydrite, and rutile (Manske and Paul, 2002; Harrison, 2007; Zulliger, 2007; Schwarz, 2010; Winant, 2010).

Sericite appears to have been partially replaced by kaolinite in large rock volumes without associated diagnostic advanced argillic minerals. The sericite-kaolinite assemblage may represent a transition from quartz-sericite-pyrite to advanced argillic alteration, as described by Seedorff et al. (2005a). As indicated in Table 2, quartz-sericite-pyrite-altered diabase contains lower concentrations of Ca, Fe, Mg, Na, Mn, Pb, and Zn and higher concentrations of S, As, Ag, Au, Cu, and Mo than unaltered diabase.

#### *Advanced argillic alteration*

Advanced argillic assemblages are almost entirely contained within quartz-sericite-pyrite-altered rock volumes (Fig. 5B), mainly in the upper Kvs-hosted parts of the deposit (Fig. 5A). About half the volume of rock affected by advanced argillic alteration lies above the top of the 1% Cu Shell (Fig. 5B). Dickite and lesser amounts of topaz extend up to 1.5 km laterally from the center of the hydrothermal system along favorable strata, notably within Kqs and Cambrian Bolsa Quartzite in the northwest sector. Topaz alteration also forms a halo up to 300 m wide immediately above the 1% Cu shell as well as in strongly fractured zones within the 1% Cu shell. Kaolinite, as determined by near-infrared spectroscopy, and pyrite are the most abundant alteration minerals within the advanced argillic assemblage at Resolution, but dickite is the mineral diagnostic of advanced argillic alteration most easily recognized in drill cores. In decreasing order of abundance and distribution, alunite, zunyite, woodhouseite, and

pyrophyllite are also present (Troutman, 2001; Manske and Paul, 2002; Harrison, 2007; Zulliger, 2007; Winant, 2010). These minerals are typically associated with 10 to 20 wt % pyrite and 25 to 100 ppm arsenic; enargite is rarely present. Diabase affected by advanced argillic alteration has a similar composition to diabase affected by quartz-sericite-pyrite alteration (Table 2).

#### *Skarns*

Destruction of original carbonate minerals in Proterozoic and Paleozoic carbonate units is complete within the 1% Cu Shell. Volume reduction during skarn formation may contribute to the reduced thickness of the Paleozoic stratigraphic section seen at some locations within the downdropped block at Resolution; such volume reduction due to skarn formation was documented within similar host carbonates at Christmas (Perry, 1969).

*Magnesian skarn:* Magnesian skarn occurs primarily within dolomitic portions of the Mescal Limestone and in the lower portion of the Martin Limestone; anhydrous magnesian skarn has not been identified within the Resolution deposit. The most characteristic minerals of the magnesian skarn are tremolite and talc but anhydrite, chlorite, serpentine, magnetite, and hematite are also typically present. Magnetite is usually partially altered to hematite.

*Calcic skarn:* In limestone beds, early assemblages of andraditic garnet ± diopside ± wollastonite are partially to completely overprinted by hydrous minerals including chlorite, actinolite, epidote, and calcite. Biotite hornfels formed locally in interbedded silty or shaley limestones. Magnetite is rare to absent in retrograde calcic skarn.

*Quartz-pyrite-altered skarn:* Intense alteration to an assemblage of quartz-sericite-pyrite ± kaolinite ± dickite has affected some retrograde skarns. In some drill core intervals relict bands of pyrite and chalcopyrite are the only evidence of a former skarn. Calcium and magnesium have been strongly leached and are typically present in amounts of <1 wt %.

## Mineralization

#### *Copper mineralization*

Copper grade and mineralogy at Resolution are strongly dependent on both lithology and the predominant alteration type (Fig. 5A-C). Copper grades are higher than average in carbonate host rocks, diabase, breccia, and volcanoclastic rocks and lower in quartzite, quartzose sandstone, and Laramide intrusive rocks (Table 3).

Chalcopyrite is the dominant copper mineral in the deposit, comprising ~65 wt % of the copper in the 1% Cu Shell. Chalcopyrite is commonly the only copper sulfide mineral in rocks that exhibit exclusively potassic alteration. However, potassically altered rocks without a quartz-sericite-pyrite overprint are rare and rocks with a quartz-sericite-pyrite overprint typically have significantly higher copper grades and a chalcopyrite-bornite-pyrite sulfide assemblage. A late, high sulfidation assemblage consisting of bornite, chalcocite, digenite, and pyrite is spatially associated with sericite ± kaolinite alteration, with or without other diagnostic advanced argillic minerals.

TABLE 3. Average Grades for the 1% Cu Shell by Lithology, Alteration, and Mineralization Type

Lithology-alteration-mineralization type	(%) Cu	(%) Mo	(g/t) Ag	Lithology (vol %)
Kvs	1.58	0.034	3.68	12%
Kqs	0.95	0.038	4.49	5%
Diabase	1.58	0.038	3.02	36%
Breccia	1.64	0.033	2.61	10%
Laramide intrusion, chalcopyrite dominant	0.97	0.039	2.52	9%
Laramide intrusion, chalcocite dominant	1.42	0.025	2.18	6%
Paleozoic and Proterozoic quartzite	0.78	0.044	3.24	12%
Retrograde skarn	1.73	0.035	3.87	8%
Quartz-pyrite-altered skarn	3.16	0.054	8.17	2%

Kqs = quartzose sandstone, Kvs = andesitic/felsic volcanoclastic rocks

Copper-bearing skarns make up 10% of the material within the 1% Cu Shell (Table 3). Magnesian skarns carry chalcopyrite and lesser bornite, whereas bornite is rare in calcic skarns. Magnetite and/or hematite tend to be approximately as abundant as the copper sulfides in magnesian skarns but are rare to absent in calcic skarns. Both magnesian and calcic skarns typically carry ~0.1% zinc as sphalerite. Quartz-pyrite-altered skarns carry high-grade copper mineralization including chalcopyrite, bornite, chalcocite, and digenite, and >15 wt % pyrite.

Figure 7 shows an example of how copper mineralogy and grade change with depth and lithology in an individual drill hole. Drill hole RES-17F is collared above the center of the deposit and inclined toward the northeast. As shown, chalcopyrite and bornite are the predominant copper sulfide minerals at most depths but significant chalcocite and traces of enargite are present at shallower depths (Fig. 7, based on QEMSCAN analysis).

#### Molybdenum mineralization

Molybdenum averages ~370 ppm within the 1% Cu Shell and occurs most commonly in quartz veins with molybdenite concentrated at vein edges, i.e., B-type veinlets (Gustafson and Hunt 1975). These veins contain variable amounts of chalcopyrite and are considered to be temporally transitional between potassic and quartz-sericite-pyrite alteration (Schwarz, 2010). Overall there is a good spatial correlation between the 1% Cu Shell and the >100 ppm Mo grade shell (Fig. 5C, D) but this correlation is absent at a local scale. Quartz-rich sedimentary rocks and Laramide intrusive rocks (i.e., silica-rich lithologies) commonly contain molybdenum grades greater than the deposit average.

#### Veining and paragenesis

The veining sequence at Resolution conforms to the general progression of vein emplacement observed in many calc-alkalic porphyry deposits (Gustafson and Hunt, 1975). These veins record the fluid evolution (Fig. 8), characterized by cooling and pH decrease with time. Early veins contain quartz, anhydrite, chalcopyrite, bornite or pyrite, molybdenite, and locally, magnetite, and display K-feldspar and biotite alteration selvages. It is estimated that this stage of veining contributed ~0.3 to 0.7 wt % Cu to the deposit, or roughly 20

#### Copper Distribution in Drill Hole RES-17F

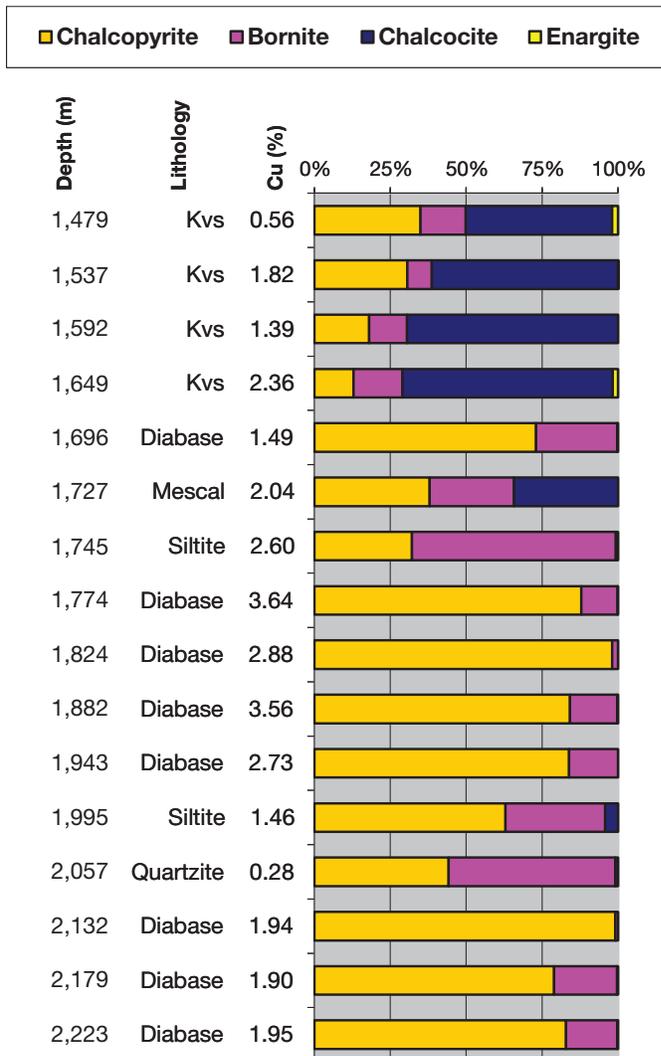


Fig 7. Quantitative evaluation of minerals by scanning electron microscopy (QEMSCAN) analyses of composite samples from drill hole RES-17F. Normalized copper mineralogy, with downhole depths in meters of the start point of sample composites. Drill hole RES-17F is collared above the center of the deposit and drilled to the northeast. Kvs = andesitic/felsic volcanoclastic rocks.

to 45% of the Cu in the 1% Cu Shell (Schwarz, 2010). These veins were affected by an episode of ductile deformation and biotite foliation in the diabase.

The majority of the copper within the resource at Resolution was deposited during the quartz-sericite alteration stage. The early veins with K-silicate selvages described above are cut by a group of veins with sericite selvages whose vein-filling minerals vary with depth. In the lower part of the deposit, the dominant vein-filling minerals are pyrite, chalcopyrite, quartz, anhydrite, and locally, hematite and carbonate (Troutman, 2001; Harrison, 2007; Winant, 2010). Chalcopyrite content in these veins varies, and the chalcopyrite typically precipitated after pyrite. Chalcopyrite is also commonly partially replaced by bornite, chalcocite, and digenite (Fig. 9). In the upper part of the deposit, veins with sericite selvages are dominated by a high



sulfidation assemblage of chalcocite, bornite, digenite, and pyrite, and some have alteration selvages that are transitional to advanced argillic alteration. Most of the chalcocite-digenite mineralization is hosted by Kvs and within the upper levels of Laramide intrusions (Figs. 5E, 8). The lower boundary of the 1% Cu Shell is normally associated with a sharp decrease in the abundance of veins with sericite selvages. In skarns, this stage of veining is represented by pyrite-chalcocopyrite veins with alteration halos dominated by chlorite but locally containing epidote, actinolite, talc, sericite, serpentine and calcite.

Hypogene hematite and/or specular hematite occurs in relatively small rock volumes primarily deep in the deposit. Hematite appears to be in equilibrium with chalcocopyrite and/or bornite that is associated with well-developed quartz-sericite alteration.

Late-stage veins consist of a high sulfidation assemblage of pyrite, bornite, chalcocite, digenite, quartz, and scarce covellite and enargite and have dickite, kaolinite, and topaz in their selvages. These veins are most abundant in the upper part of the 1% Cu Shell (Fig. 5F) and occupy significant volumes of rock containing >14 wt % pyrite (Fig. 5E). The average pyrite content of the material within the 1% Cu Shell is ~8 wt %.

#### *Gold and silver*

Gold contents within the 1% Cu Shell at Resolution are negligible, averaging ~50 ppb, whereas silver averages ~3.25 ppm. There is an overall spatial correlation between elevated silver concentrations and advanced argillic alteration, suggesting silver substitution within the chalcocite that accompanies advanced argillic alteration. Skarn, especially where subjected to late quartz-pyrite alteration, has above average gold and silver contents (Table 3).

#### *Leached capping and supergene enrichment*

A hematite-dominated leached capping up to 250 m thick overlies the Resolution deposit, dipping east northeast (Fig. 5B). The leached capping is developed in the Cretaceous volcanic rocks, intrusions, and breccias and was formed when the deposit was uplifted and partially eroded sometime prior to ~25 Ma, or the onset of Tertiary basin and range faulting. No significant chalcocite blanket has been identified although locally some modest intersections of secondary chalcocite are present. In the eastern sector of the deposit leached capping shows a transition into hypogene sulfides over a few meters with no intervening secondary chalcocite (Fig. 5B). The mixed oxide-sulfide zone is normally <50 m thick but locally extends farther down faults and fracture zones. Minor amounts of native copper occur in the leached capping.

#### *Age of mineralization*

Twenty-three new radiometric ages for sulfide minerals, and for biotite, sericite, and alunite from rocks that have suffered intense hydrothermal alteration, are reported in Table 1. The Re-Os ages were determined by the AIRIE Program at Colorado State University by methods described by Stein et al. (2000, 2001) and Zimmerman et al. (2008). The biotite, sericite, and alunite ages were determined by the  $^{40}\text{Ar}/^{39}\text{Ar}$  method at the Pacific Center for Isotopic and Geochemical Research at the University of British Columbia and at the

New Mexico Geochronology Research Laboratory at the New Mexico Institute of Mining and Technology.

Re-Os dates were determined for molybdenite from three samples: a quartz-molybdenite vein cutting a hydrothermal breccia, a banded quartz-molybdenite vein cutting a felsic volcanoclastic rock, and a quartz-molybdenite vein cutting the eastern rhyodacite porphyry stock. The Re-Os ages range from  $65.1 \pm 0.3$  to  $63.9 \pm 0.2$  Ma (Table 1; Zulliger, 2007).

New  $^{40}\text{Ar}/^{39}\text{Ar}$  ages are reported for five samples of biotite and for four samples of sericite from hydrothermally altered rocks. The biotite ages range from  $63.53 \pm 0.38$  to  $62.05 \pm 0.34$  Ma and the sericite ages range from  $63.25 \pm 0.46$  to  $61.93 \pm 0.34$  Ma. Biotite phenocrysts from a dike of coarse-grained, potassically altered KTrdp that lies beneath the thickest part of the 1% Cu shell, near the center of the deposit, yield an age of  $63.10 \pm 0.11$  Ma. Zircons from the same dike yield a U-Pb age of  $64.1 \pm 1.9$  Ma.

The Re-Os molybdenite ages and the  $^{40}\text{Ar}/^{39}\text{Ar}$  biotite and sericite ages suggest that the bulk of the copper and molybdenum mineralization at Resolution may have occurred between ~65 and ~64 Ma, and that the system cooled below the argon closure temperatures for biotite and sericite between ~63.5 and ~62 Ma. This magmatic cooling scenario is also supported by the U-Pb and  $^{40}\text{Ar}/^{39}\text{Ar}$  ages, ~64 and ~62.7 Ma, respectively, for the potassically altered KTrdp dike from beneath the center of the deposit.

$^{40}\text{Ar}/^{39}\text{Ar}$  ages for four alunite samples, including one from a quartz-alunite-chalcocite-digenite vein, range from  $62.3 \pm 0.40$  to  $60.4 \pm 1.2$  Ma.  $^{40}\text{Ar}/^{39}\text{Ar}$  ages for two other hypogene alunite samples range from  $51.67 \pm 0.29$  to  $49.39 \pm 0.38$  Ma. A single-sample Re-Os age of  $51.4 \pm 0.2$  Ma for pyrite from a massive pyrite-dickite vein is consistent with the two younger alunite ages and may suggest a later pulse of hydrothermal activity. We are not yet ready to draw conclusions on replicate single-sample Re-Os ages of  $22.97 \pm 0.1$  and  $22.77 \pm 0.08$  Ma for pyrite from another massive pyrite-dickite vein.

## Discussion

#### *Geologic setting*

The Resolution deposit occurs within a long-recognized, E-NE-trending mineral belt that extends for 35 km, from Superior to Globe, and includes numerous copper occurrences (Peterson, 1962; Sell, 1995). Maher (2008) developed a structural reconstruction which indicates that many of the larger copper deposits in the eastern half of the belt are portions of a single porphyry copper system hosted by the Schultze Granite and dismembered by ENE-WSW hyperextension on rotated, flat-dipping faults. However, the Resolution deposit, which lies near the western end of the belt, is hosted mostly by sedimentary rocks and conformable diabase sills; structural interpretations constrained by stratigraphy suggest that extension was modest, and that the deposit has been affected by only about ~25° of postmineral tilting toward the east northeast.

A striking aspect of the local setting of the Resolution deposit is the presence of numerous E-W- to E-NE-trending veins exposed to the west of the deposit (Fig. 2). Drilling has confirmed the predominance of N-NE- to E-NE-trending vein orientations within the deposit (Fig. 6D). Heidrick and

Titley (1982) noted that E-NE-trending veins and dikes are common to many of the mining districts in the Southwest North America porphyry copper province and may reflect E-NE-oriented compression resulting from convergence of the Farallon and North America plates. Variations in vein orientations in the Resolution district may reflect interaction between old structural fabrics and the local stress field at the time of mineralization.

#### *Resolution horst/graben*

A fortuitous aspect of the geology at Resolution is the preservation of Cretaceous sedimentary rocks and tuffs within a local graben. Hammer (1967) suggested a correlation between the Cretaceous rocks at Resolution and those present in the Reed basin east of the Christmas deposit. U-Pb dating of detrital zircons (Zulliger, 2007) established a maximum age of ~97 Ma for the basal quartz rich sandstone (Table 1). The 1,000-m-thick sequence of andesitic volcanoclastic rocks and rhyodacitic tuffs has yielded dates ranging from ~74 to ~64 Ma (Table 1). The older volcanoclastic rocks, which predominate in the northwest sector of the graben, show compositional and age similarities to the Silver King stock, which lies 2 to 4 km northwest of the graben (Fig. 3). The younger quartz-phyric rhyodacite tuffs show a striking resemblance to underlying hypabyssal quartz-phyric rhyodacite Laramide intrusions in the southeast sector of the graben and have similar U-Pb ages (Table 1).

The Resolution graben is bounded by the North, South, and West Boundary faults. The structural and kinematic complexity required to accommodate development of a graben with more than 1 km of displacement along multiple faults was discussed by Manske and Paul (2002). That necessary complexity has since increased with recognition that varying amounts of Paleozoic strata are missing within the graben. Our present interpretation is that the boundary faults originally bounded a horst, the uplift of which facilitated differential erosion of Paleozoic strata. Evidence for erosion as the mechanism for removal of Paleozoic strata includes an irregular unconformable Paleozoic-Cretaceous contact, the normal sequence of lower Paleozoic strata in contact with the underlying Apache Group sedimentary rocks, and the lack of recognizable, low-angle faults other than minor, bedding-parallel shears.

Evidence from recent drilling suggests the graben developed as an asymmetric, structurally controlled basin, and that the West Boundary fault was a growth fault during deposition of the Kvs. Because the North Boundary and South Boundary faults do not show significant displacement beyond the West Boundary fault, they are inferred to be kinematically linked to the West Boundary fault and to have acted as scissor faults, with progressively more displacement to the west.

The Resolution deposit is centrally located within the Resolution graben. It seems likely that the local extensional environment that generated the graben also controlled the emplacement of a body of magma that exsolved the ore fluids responsible for the deposit.

#### *Age of mineralization*

Mineralization-related radiometric ages for Resolution samples show a plausible sequence. The Re-Os dates for molybdenite at ~65 to 64 Ma overlap the youngest U-Pb ages,

~65 to 64 Ma, for the hypabyssal KTrdp intrusions (Table 1). The youngest Re-Os molybdenite age at ~64 Ma is followed by slightly younger  $^{40}\text{Ar}/^{39}\text{Ar}$  ages for secondary biotite and sericite, which range from ~63.5 to ~62 Ma. Four of eight alunite  $^{40}\text{Ar}/^{39}\text{Ar}$  ages are still younger at ~62.3 to ~60.4 Ma. The alunite is paragenetically younger than the biotite and sericite but it is unclear whether the alunite ages reflect cooling rates (Arribas et al., 2011). The decrease in radiometric ages, ~65 to 64 Ma (molybdenite) → ~63.5 to 62 Ma (biotite-sericite) → ~62 to 60 Ma (alunite), presents a consistent pattern that fits the observed paragenetic relationships, and also matches the general trend in closure temperatures for these minerals.

A ~51.4 Ma Re-Os age for pyrite from a massive pyrite-dickite vein together with  $^{40}\text{Ar}/^{39}\text{Ar}$  dates of ~51.7 to 49.4 Ma for two hypogene alunite veins suggests that a younger hydrothermal event may be superimposed on the Resolution system.

#### *Causative intrusion*

The Globe-Miami-Superior mineral belt is centered on the Schultze Granite, a 12-km-long, E-NE elongate multiphase intrusion, the western end of which is shown in Figure 3. The granite exhibits a variety of textures but has a consistent composition, with 70 to 74%  $\text{SiO}_2$ , biotite and quartz phenocrysts, and characteristic megacrysts of orthoclase. U-Pb zircon ages for the granite range from 67 to 61 Ma (Seedorff et al., 2005b; Stavast, 2006). Deep portions of the pluton are well exposed by faulting, uplift, and erosion but show no evidence of underplating or interaction with primitive mafic rocks.

The Schultze Granite is more siliceous than the intrusions associated with most porphyry copper deposits; however, porphyritic phases of the Schultze Granite are intimately related to copper mineralization at the Pinto Valley, Miami-Inspiration, and Copper cities (Peterson, 1954; Stavast, 2006). We cannot explicitly invoke the Schultze Granite as the causative intrusion at Resolution, but some of the hypabyssal intrusions at Resolution show K-feldspar phenocrysts up to 30 mm across, similar to those seen in the Schultze Granite. Neither do we see indications of a distinctly different type of intrusion at Resolution; for example, shoshonitic dikes and mafic rock xenoliths are absent.

Laramide intrusive rocks host only 15% of the material within the 1% Cu Shell (Table 3) and are limited to a swarm of narrow dikes that trend east-west to east-northeast through the center of the deposit, and two small stocks at its margins. Drilling to date has not encountered a stock that is central to the distribution of mineralization and alteration.

Schwarz (2010, fig. 37) demonstrated that the biotite-foliation within potassically altered diabase at Resolution defines a broad dome centered on the eastern portion of the orebody. He suggested that the foliation could have developed at a level below the brittle-ductile transition (Fournier, 1999) in response to local stresses imparted by the intrusion of a hypothetical stock located beneath the deposit at depths below the current drill holes.

#### *Shape of the copper deposit and lack of dismemberment*

The outer limits of the Resolution deposit are not yet well defined but the 1% Cu Shell as presently known takes the form of a thick, approximately upright tortoise shell. The vertical

thickness of the zone of >1% Cu mineralization reaches a maximum of about 600 m in the center of the shell. The steep limbs are incompletely defined because they persist to the bottoms of the deepest drill holes. The geometry and copper distribution seen at Resolution are illustrated in plan and section in Figure 10, where they are compared to the geometries and copper distributions related to the huge porphyry copper deposits at Bingham Canyon, Utah, Hugo Dummett North, Mongolia, and Grasberg, Papua.

Based on the regular boundaries of the mineralized zone and internal mineralization and alteration zoning patterns, the portion of the Resolution deposit explored to date does not appear to be dismembered or even strongly offset by post-mineral faults. Bedding orientations near the base of the post-mineral Whitetail Conglomerate suggest that the Resolution deposit has been rotated to the east-northeast by ~25°. This rotation is assumed to be a consequence of Tertiary displacement on the Devils Canyon and Conley Springs normal faults.

#### *Reason for high hypogene copper grades*

The average copper grade of the Resolution Inferred Resource is 1.47% Cu, which is unusually high for hypogene deposits within the Southwest North America porphyry copper

province (Leveille and Stegen, 2012). One reason for the relatively high grade is the absence of syn- and postmineral dikes that commonly cause dilution in porphyry deposits. However, other factors play a role, the most important likely being the presence of favorable host rocks. Proterozoic diabase constitutes 36% of the material within the 1% Cu Shell (Table 3) and is an excellent copper host, likely due to its Fe-rich nature (Sillitoe, 2010). Skarns, replacing Proterozoic and Paleozoic carbonates, constitute 10% of the material within the 1% Cu Shell (Table 3) and also host much higher grade than average copper mineralization.

Another important cause of high copper grades at Resolution is that the stage marked by quartz-sericite-pyrite alteration appears to have contributed additional copper as chalcopyrite, bornite, and chalcocite rather than depleting the copper grade as in many other deposits. Hypogene enrichment, due to late-stage replacement of chalcopyrite by bornite, chalcocite, and digenite (Fig. 8), may have also played a role. Bornite and chalcocite are locally the predominant copper sulfides in the portion of the deposit characterized by advanced argillic alteration (Fig. 5F). Examination of the resource model shows that the grade of rhyodacite porphyry within the chalcocite-bornite-dominant domain is 40%

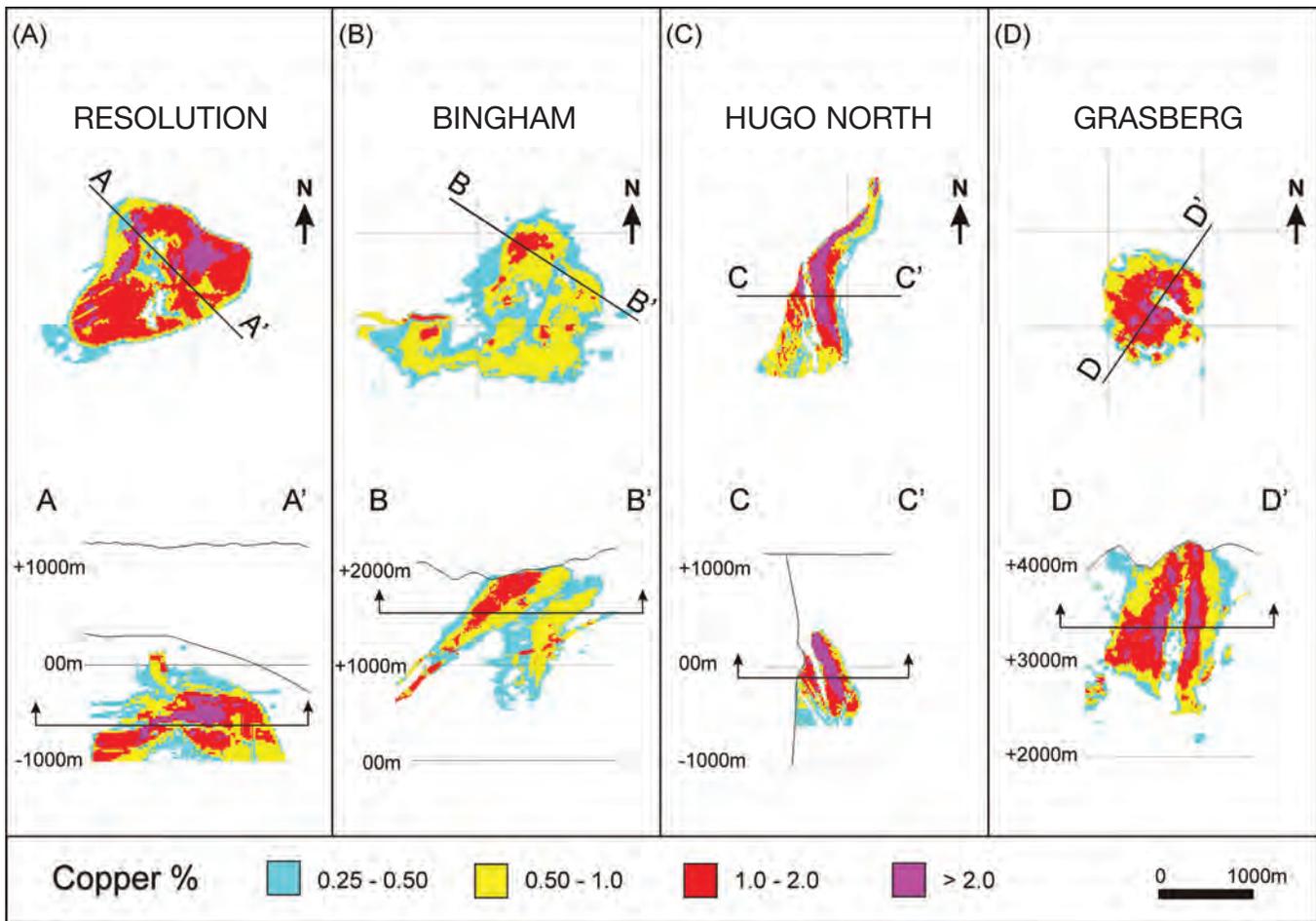


FIG. 10. Level plans and cross sections showing the geometry of Cu grade distribution at the Resolution, Bingham, Hugo Dummett, and Grasberg porphyry copper deposits. The elevation of the plan maps is shown in the sections.

higher on average than the grade of the same lithology within the chalcopyrite-dominant domain (Table 3).

### Conclusions

The Resolution deposit is a deep, high-grade hypogene porphyry Cu-Mo deposit hosted by Proterozoic and Paleozoic quartzite and carbonate units, Proterozoic diabase sills, and Cretaceous sandstones, volcanoclastic rocks, and tuffs. Minor premineral felsic porphyry intrusions host only ~15% of the resource and a centrally located stock that clearly controls the distribution of alteration and mineralization has yet to be defined. U-Pb zircon ages for intrusions in the vicinity of the deposit span ~5 m.y., from ~69 to ~64 Ma, and Re-Os molybdenite ages range from ~65 to ~64 Ma. The deposit is tilted ~25° to the east-northeast and has not been significantly dismembered by Tertiary extension.

High hypogene copper grades in the Resolution deposit resulted from (1) favorable diabase and limestone host rocks, (2) additional chalcopyrite, bornite, and chalcocite mineralization introduced during quartz-sericite-pyrite alteration, and (3) a late stage of mineralization associated with advanced argillic alteration during which earlier chalcopyrite was replaced by bornite, chalcocite, and digenite. High hypogene copper grades may also result from an atypically long period of ore fluid flux focused through centrally located pre- and syn-mineral breccias that provided conduits through subhorizontal diabase sills. Such a sustained flux of hydrothermal fluids may have resulted in deposition of ore several hundred meters above an as-yet unseen intrusion that exsolved the ore fluid.

### Acknowledgments

We appreciate the courtesy that Scott Manske and Don Hammer extended to us as we attempted to understand the geology of the Superior district. We also acknowledge contributions from numerous past and present geologic colleagues at Resolution, including former chief geologists Dave Andrews, Tim Marsh, and Gustavo Zulliger. We especially acknowledge the contributions of Gustavo whose persistent observations led to a preliminary stratigraphy for the Cretaceous sedimentary and volcanic units. Marco Einaudi, Lewis Gustafson, William Chavez, John Proffett, Eric Seedorff, and Richard Sillitoe are thanked for helpful suggestions and insights. We thank Rio Tinto and BHP Billiton for permission to publish, Michael Alvarez for drawing the figures, Jay Hammitt for a review of an early draft, and Scott Manske and Gustavo Zulliger for reviews on behalf of the editors.

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# Exhibit F

The WHITE HOUSE



## PRESIDENTIAL ACTIONS

## Immediate Measures to Increase American Mineral Production

Executive Orders

March 20, 2025

By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 301 of title 3, United States Code, it is hereby ordered:

Section 1. Purpose. The United States possesses vast mineral resources that can create jobs, fuel prosperity, and significantly reduce our reliance on foreign nations. Transportation, infrastructure, defense capabilities, and the next generation of technology rely upon a secure, predictable, and affordable supply of minerals. The United States was once the world's largest producer of lucrative minerals, but overbearing Federal regulation has eroded our Nation's mineral production. Our national and economic security are now acutely threatened by our reliance upon hostile foreign powers' mineral production. It is imperative for our national security that the United States take immediate action to facilitate domestic mineral production to the maximum possible extent.

Sec. 2. Definitions. For the purposes of this order:

(a) "Mineral" means a critical mineral, as defined by 30 U.S.C. 1606(a)(3), as well as uranium, copper, potash, gold, and any other element, compound or material as determined by the Chair of the National Energy Dominance Council (NEDC).

(b) "Mineral production" means the mining, processing, refining, and smelting of minerals, and the production of processed critical minerals and other derivative products.

(c) The term “processed minerals” refers to minerals that have undergone the activities that occur after mineral ore is extracted from a mine up through its conversion into a metal, metal powder, or a master alloy. These activities specifically occur beginning from the point at which ores are converted into oxide concentrates, separated into oxides, and converted into metals, metal powders, and master alloys.

(d) The term “derivative products” includes all goods that incorporate processed minerals as inputs. These goods include semi-finished goods (such as semiconductor wafers, anodes, and cathodes) as well as final products (such as permanent magnets, motors, electric vehicles, batteries, smartphones, microprocessors, radar systems, wind turbines and their components, and advanced optical devices).

Sec. 3. Priority Projects. (a) Within 10 days of the date of this order, the head of each executive department and agency (agency) involved in the permitting of mineral production in the United States shall provide to the Chair of the NEDC a list of all mineral production projects for which a plan of operations, a permit application, or other application for approval has been submitted to such agency. Within 10 days of the submission of such lists, the head of each such agency shall, in coordination with the Chair of the NEDC, identify priority projects that can be immediately approved or for which permits can be immediately issued, and take all necessary or appropriate actions within the agency’s authority to expedite and issue the relevant permits or approvals.

(b) Within 15 days of the date of this order, the Chair of the NEDC, in consultation with the heads of relevant agencies, shall submit to the Executive Director of the Permitting Council mineral production projects to be considered as transparency projects on the Permitting Dashboard established under section 41003 of title 41 of the Fixing America’s Surface Transportation Act, Public Law 114-94, 129 Stat. 1748. Within 15 days of receiving the submission, the Executive Director shall publish any projects selected and establish schedules for expedited review.

(c) The Chair of the NEDC, in consultation with relevant agencies, shall issue a request for information to solicit industry feedback on regulatory bottlenecks and other recommended strategies for expediting domestic mineral production.

Sec. 4. Mining Act of 1872. Within 30 days of the date of this order, the Chair of the NEDC and the Director of the Office of Legislative Affairs shall jointly prepare and submit recommendations to the President for the Congress to clarify the treatment of waste rock, tailings, and mine waste disposal under the Mining Act of 1872.

Sec. 5. Land Use for Mineral Projects. (a) Within 10 days of the date of this order, the Secretary of the Interior shall identify and provide the Assistant to the President for Economic Policy and the Assistant to the President for National Security Affairs with a list of all Federal lands known to hold mineral deposits and reserves. The Secretary of the Interior shall prioritize mineral production and mining related purposes as the primary land uses in these areas, consistent with applicable law. Land use plans under the Federal Land Policy and Management Act shall provide for mineral production and ancillary uses, and be amended or revised as necessary, to support the intent of this order.

(b) Within 30 days of the date of this order, the Secretary of Defense, the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Energy shall identify as many sites as possible on Federal land managed by their respective agencies that may be suitable for leasing or development pursuant to 10 U.S.C. 2667, 42 U.S.C. 7256, or other applicable authorities, for the construction and operation of private commercial mineral production enterprises and provide such list to the Assistant to the President for Economic Policy, the Assistant to the President for National Security Affairs, and the Chair of the NEDC. The Secretary of Defense, the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Energy shall prioritize including sites on such lists on which mineral production projects could be fully permitted and operational as soon as possible and have the greatest potential effect on robustness of the domestic mineral supply chain.

(c) The Secretary of Defense and the Secretary of Energy shall enter into extended use leases as authorized by 10 U.S.C. 2667 or by 42 U.S.C. 7256(a) respectively, or using any other authority they deem appropriate, with private entities to advance the installation of commercial mineral production enterprises on the lands identified pursuant to subsection (b) of this section. The installation of such commercial mineral production enterprises may be accomplished through development and construction or via modification of existing structures to be compatible with commercial requirements.

(d) Within 30 days of the date of this order, the Secretary of Defense and the Secretary of Energy shall coordinate with the Secretary of Agriculture, the Administrator of the Small Business Administration, and the head of any other agency that provides or can provide loans, capital assistance, technical assistance, and working capital to domestic mineral production project sponsors to ensure that all private parties who enter into lease and commercial agreements under subsection (c) of this section can utilize as

many favorable terms and conditions as are available under public assistance programs for these purposes, consistent with applicable law.

Sec. 6. Accelerating Private and Public Capital Investment. (a) The Secretary of Defense shall utilize the National Security Capital Forum to facilitate the introduction of entities to pair private capital with commercially viable domestic mineral production projects to the maximum possible extent.

(b) To address the national emergency declared pursuant to Executive Order 14156 of January 20, 2025 (Declaring a National Energy Emergency), I hereby waive the requirements of 50 U.S.C. 4533(a)(1) through (a)(6). By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 301 of title 3, United States Code, I hereby delegate to the Secretary of Defense the authority of the President conferred by section 303 of the Defense Production Act (DPA) (50 U.S.C. 4533). The Secretary of Defense may use the authority under section 303 of the DPA, in consultation with the Secretary of the Interior, the Secretary of Energy, the Chair of the NEDC, and the heads of other agencies as the Secretary of Defense deems appropriate, for the domestic production and facilitation of strategic resources the Secretary of Defense deems necessary or appropriate to advance domestic mineral production in the United States. Further, within 30 days of the date of this order, the Secretary of Defense shall add mineral production as a priority industrial capability development area for the Industrial Base Analysis and Sustainment Program.

(c) Agencies that are empowered to make loans, loan guarantees, grants, equity investments, or to conclude offtake agreements to advance national security in securing vital mineral supply chains, both domestically and abroad, shall, to the extent permitted by law, take steps to rescind any policies that require an applicant to complete and submit to the agency as part of an application for such funds the disclosures that are required by Regulation S-K part 1300.

(d) To address the national emergency declared pursuant to Executive Order 14156, I hereby waive the requirements of 50 U.S.C. 4531(d)(1)(a)(ii), 4332(d)(1)(B), and 4533(a)(1) through (a)(6). By the authority vested in me as President by the Constitution and the laws of the United States of America, including section 301 of title 3, United States Code, I hereby delegate to the Chief Executive Officer (CEO) of the United States International Development Finance Corporation (DFC) the authority of the President conferred by sections 301, 302, and 303 of the DPA (50 U.S.C. 4531, 4532, and 4533), and the authority to implement the DPA in 50 U.S.C. 4554, 4555, 4556, and 4560. The CEO of the DFC

may use the authority under sections 301, 302 and 303 of the DPA, in consultation with the Secretary of Defense, the Secretary of the Interior, the Secretary of Energy, the Chair of the NEDC, and the heads of other agencies as the CEO deems appropriate, for the domestic production and facilitation of strategic resources the CEO deems necessary or appropriate to advance mineral production. The loan authority delegated by this order is limited to loans that create, maintain, protect, expand, or restore domestic mineral production. Loans, loan guarantees, and political risk insurance extended using the authority delegated by this subsection shall be made in accordance with the principles and guidelines outlined in the Office of Management and Budget (OMB) Circular A-11 and OMB Circular A-129, in each case subject to such exceptions as the Director of OMB grants, and the Federal Credit Reform Act of 1990, as amended (2 U.S.C. 661 *et seq.*). The CEO of the DFC, in coordination with the Director of OMB, shall adopt appropriate rules and regulations as may be necessary to implement this order in coordination with the Assistant to the President for Economic Policy.

(e) Within 30 days of the date of this order, the CEO of the DFC and the Secretary of Defense shall develop and propose a plan to the Assistant to the President for National Security Affairs for the DFC to use Department of Defense investment authorities (including the DPA) and the Department of Defense Office of Strategic Capital to establish a dedicated mineral and mineral production fund for domestic investments executed by the DFC. Any such fund shall be implemented pursuant to such plan only after approval by each of the Secretary of Defense, the CEO of the DFC, and the Assistant to the President for National Security Affairs. Pursuant to the reimbursement authorities in the Economy Act, the Secretary of Defense shall transfer to the DFC any appropriated funds from the Defense Production Act Fund or from the Office of Strategic Capital necessary to reimburse the DFC in connection with its services performed on behalf of and in coordination with the Department of Defense to implement subsection (d) of this section and this subsection. In connection with such reimbursements, the Secretary of Defense shall direct the Under Secretary of Defense (Comptroller) to defer to the credit and underwriting policies of the DFC with respect to the use of such funds by the DFC.

(f) Within 30 days of the date of this order, the President of the Export-Import Bank shall release recommended program guidance for the use of mineral and mineral production financing tools authorized under the Supply Chain Resiliency Initiative to secure United States offtake of global raw mineral feedstock for domestic minerals

processing, as well as under the Make More in America Initiative to support domestic mineral production.

(g) Within 30 days of the date of this order, the Assistant Secretary of Defense for Industrial Base Policy shall convene buyers of minerals and work towards an announced request for bids to supply the minerals.

(h) Within 45 days of the date of this order, the Administrator of the Small Business Administration shall prepare and submit through the Assistant to the President for Economic Policy recommendations for legislation to enhance private-public capital activities to support financings to domestic small businesses engaged in mineral production. The Administrator of the Small Business Administration shall further take steps to promulgate such regulations, rules, and guidance as the Administrator determines are necessary or appropriate for such purposes.

Sec. 7. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

DONALD J. TRUMP

THE WHITE HOUSE,

March 20, 2025.

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# Exhibit G

*The* WHITE HOUSE



FACT SHEETS

Fact Sheet: President Donald J. Trump Addresses the Threat to National Security from Imports of Copper

The White House

February 25, 2025

**SECURING AMERICA'S COPPER SUPPLY:** Today, President Donald J. Trump signed an Executive Order launching an investigation into how copper imports threaten America's national security and economic stability.

- The Order directs the Secretary of Commerce to initiate a Section 232 investigation under the Trade Expansion Act of 1962.
- This investigation will assess the national security risks arising from the United States' increasing dependence on imported copper, in all its forms, and the potential need for trade remedies to safeguard domestic industry.
- The investigation will culminate in a report identifying vulnerabilities in the copper supply chain and providing recommendations to enhance the resilience of America's domestic copper industry.

**ADDRESSING THE THREAT TO NATIONAL SECURITY:** President Trump recognizes that an overreliance on foreign copper, in all its forms, could jeopardize U.S. defense capabilities, infrastructure development, and technological innovation.

- Copper is an essential material for national security, economic strength, and industrial resilience.
  - Copper plays a vital role in defense applications, infrastructure, and emerging technologies like clean energy, electric vehicles, and advanced electronics.
  - Copper is the Defense Department's second-most utilized material.

- Despite possessing ample copper reserves, America’s smelting and refining capacity lags behind global competitors like China, which controls over 50% of global smelting.
  - The United States isn’t even in the top five nations in copper smelting capacity.
- America’s reliance on copper imports has surged from virtually 0% in 1991 to 45% of consumption in 2024, heightening risks to supply chain security.
- Foreign overcapacity in smelting and refining, coupled with potential export restrictions from other nations, threaten to disrupt copper availability for U.S. defense and industry needs.

**STRENGTHENING AMERICAN INDUSTRY:** This Executive Order builds on previous actions taken by the Trump Administration to ensure U.S. trade policy serves the nation’s long-term interests.

- On Day One, President Trump initiated his America First Trade Policy to make America’s economy great again.
- President Trump signed proclamations to close existing loopholes and exemptions to restore a true 25% tariff on steel and elevate the tariff to 25% on aluminum.
- President Trump implemented a 10% additional tariff on imports from China in response to China’s role in the border crisis.
- President Trump unveiled the “Fair and Reciprocal Plan” on trade to restore fairness in U.S. trade relationships and counter non-reciprocal trade agreements.

President Trump signed a memorandum to safeguard American innovation, including the consideration of tariffs to combat digital service taxes (DSTs), fines, practices, and policies that foreign governments levy on American companies.

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# Exhibit H

**Appendix A**

Comments from the Center for Science in Public Participation

*David M. Chambers, Ph.D., P. Geop.*

*October 28, 2019*

## CENTER for SCIENCE in PUBLIC PARTICIPATION

224 North Church Avenue, Bozeman, MT 59715  
Phone (406) 585-9854 / Fax (406) 585-2260 / web: [www.csp2.org](http://www.csp2.org) / e-mail: [csp2@csp2.org](mailto:csp2@csp2.org)

*“Technical Support for Grassroots Public Interest Groups”*



October 28, 2019

Resolution EIS Comment  
PO Box 34468  
Phoenix, AZ 85067-4468  
[www.ResolutionMineEIS.us/Comment](http://www.ResolutionMineEIS.us/Comment)

Fm: David M. Chambers, Ph.D., P. Geop.

### **Re: Comments on the Resolution Copper Draft Environmental Impact Statement**

#### **Background**

David Chambers has 40 years of experience in mineral exploration and development – 15 years of technical and management experience in the mineral exploration industry, and for the past 25+ years he has served as an advisor on the environmental effects of mining projects both nationally and internationally. He has Professional Engineering Degree in physics from the Colorado School of Mines, a Master of Science Degree in geophysics from the University of California at Berkeley, and is a registered professional geophysicist in California (# GP 972). Dr. Chambers received his Ph.D. in environmental planning from Berkeley. His recent research focuses on tailings dam failures, and the intersection of science and technology with public policy and natural resource management.

This review was conducted at the request, and financial support, of the San Carlos Apache Tribe and Arizona Mining Reform Coalition.

#### **Alternative Mining Methods**

Underground mining alternatives to block caving were eliminated from further consideration in the DEIS. These methods were eliminated from detailed consideration in the DEIS based largely on two factors, the cost of mining and the feasibility of large-scale tailings backfill.

The DEIS identifies the environmental and social values that would be lost due to block caving, but does not give these factors the same weight as cost of mining and technical feasibility. As will be discussed, the preservation of environmental values (recreation, surface and groundwater loss) and social values (Native American heritage) should be given significant weight in the DEIS if it is reasonably possible to preserve these values.

The mine will provide economic value to the region for 41 years, but the impacts due to subsidence will remain in perpetuity. A backfill-compatible underground mining method would allow preservation of environmental and social values predicted to be lost due to subsidence, would not sterilize part of the remaining mineral resource, would mine the ore body more efficiently, and would provide more jobs over a longer term to the local economy.

The land exchange is contingent upon:

*“(2) approval of the ‘‘General Plan of Operations’’ (GPO) for any operations on National Forest System (NFS) land associated with a proposed large-scale underground mine (Resolution Copper Project) (DIES 2019)*

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To the lay reader the statement suggests that the US Forest Service is not obligated to approve the GPO because of the land trade, but must still evaluate the GPO in line with its general permitting obligations for a large mine GPO. It does not say, for example, that because Congress has authorized a land trade, that the GPO must be approved even if it means the destruction of resources the US Forest Service would normally be obligated to protect. The US Forest Service is still obligated to evaluate the protection of existing uses and resources, including environmental and social values, as a part of its approval of a GPO.

The US Forest Service is already proposing significant, and sound, changes to the company's proposed plan of operation, including relocation of the tailings facilities, and construction of centerline/downstream dams instead of upstream dams as proposed by the Resolution Copper. A similar shift to an underground mining technique that would prevent surface subsidence would be similarly sound, for reasons that will be discussed.

### **Ore Resource**

The analysis for the underground mining alternatives in the DEIS was based largely on a report commissioned by SWCA, the third party contractor to the US Forest Service for the DEIS, and written by Charles A. Kliche, P.E., PhD, in November, 2017. The Kliche report identifies a number of significant facts about the proposed mine, including:

- An indicated plus inferred resource of 1.969 billion short tons containing 1.54 percent copper and 0.035 percent molybdenum at depths 5,000 to 7,000 ft below the surface, with 1.538 billion tonnes of ore grading 0.99% copper.
- Approximately 2.02 billion tonnes of ore reserves grading 0.86% copper lying at about 350 metres below the existing undercut level of the mine.
- A loss of 12 to 15% of the ore due to the block caving method.

### **Resource Sterilization**

Since the draw angle is relatively steep in the Resolution ore body (cave angles of 70 to 78 degrees – DIES 2019), then in addition to the 12 to 15% of the ore that will be lost due to dilution in block caving, after mining at proposed levels has ceased, any ore located in the same horizontal horizon will also likely be lost to future mining. The ore located below the existing mining levels would still be accessible.

### **Ore Grade**

Dr Kliche had to work without any data support from Resolution Copper. He noted that his estimate was:

*“based on limited information provided by RCM, of the total tons of potentially mineable material above a cut-off grade of 2% which lies at or above the -2,500 ft level.”* (Kliche 2017, **emphasis added**)

Dr Kliche also noted some data was taken from a report produced for Resolution Copper, *Geologic and Mineral Resource Model - Suitability for Declaration of Mineral Resources and Support for Mine Plans to Develop a Block or Panel Cave Mine, Letter prepared exclusively for Resolution Copper Mining (RCM), by Harry M. Parker, Amec Foster Wheeler E&C Services Inc., March 14, 2017*, which was not made available in the DEIS support documents. It too might provide more information on Resolution Copper's predicted production costs, but it is evidently not available for public review.

Dr Kliche notes in his introductory remarks that this is a “*relatively low grade ... resource*”. (Kliche 2017). This view underlies his mining cost analysis. But, this is not a low grade copper resource. In fact, Resolution Copper itself has called the deposit “*large, high-grade, hypogene copper-molybdenum deposit*” (Hehnke et al 2012, *emphasis added*)

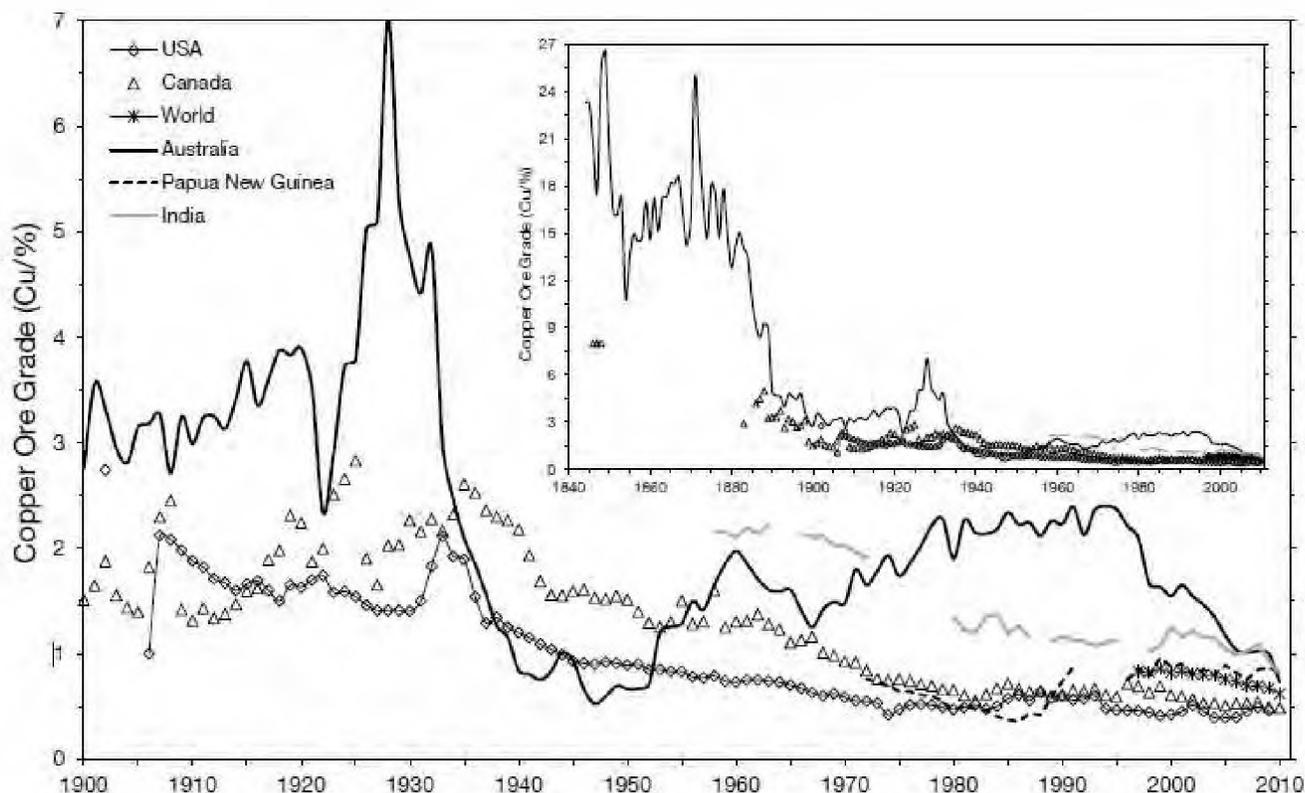


FIG. 9. Country average ore grades of milled ore for select countries over time (Mudd and Weng, 2012; India data added from Indian Bureau of Mines, 1958–2010); note that the world data covers between 70 and 80% of global mine production.

Figure 9, from Mudd et. al. (2012), document that the average copper grade worldwide is decreasing with time, and in 2012 was approximately 0.5 – 0.7% Cu. The Resolution deposit is roughly three times this grade level.

Mudd et. al. (2012) rate Resolution as the 16<sup>th</sup> largest deposit of contained copper in the world, and the second largest in the US, behind the Pebble deposit. However, this is based only on the proposed mine. If the 2 billion tons of ore below existing deposit were included, Resolution would probably rise to the number seven position worldwide.

The proposed Pebble mine also plans to have an underground mine, at a similar depth to Resolution and utilizing block caving, but its deep ore grade is closer to 0.6% Cu equivalent. This suggests mining Resolution with block caving should be very lucrative.

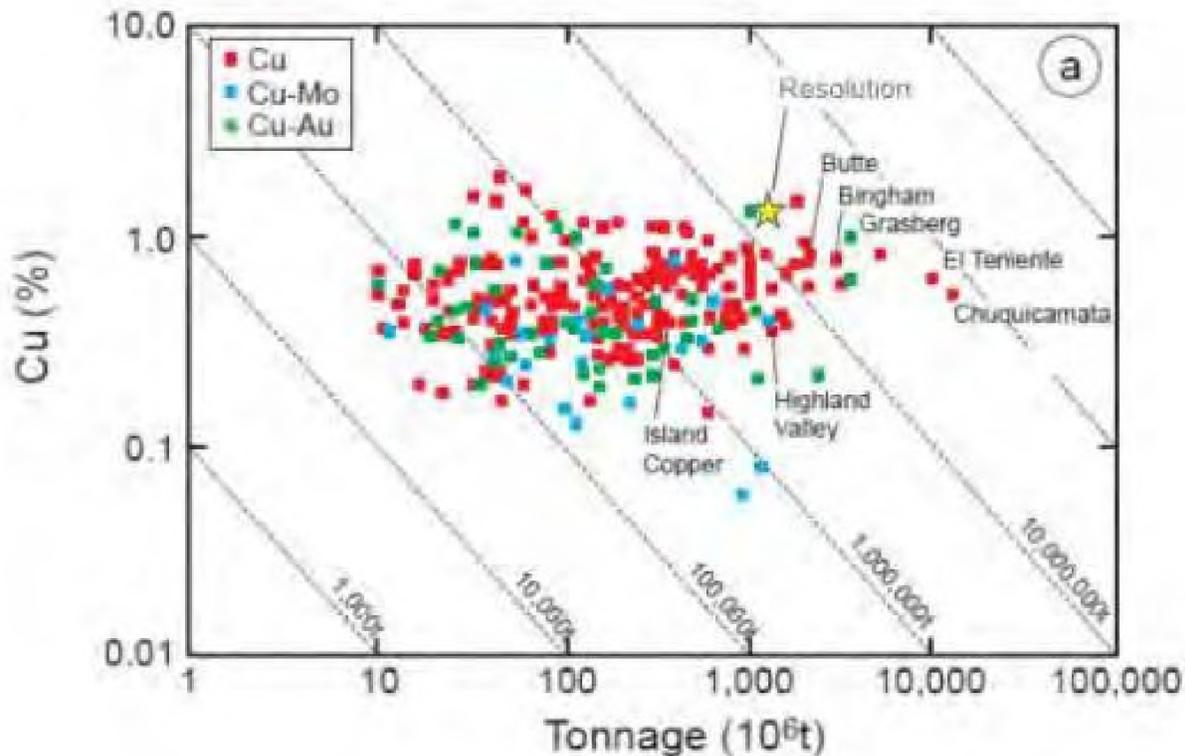


Figure 3: Grade and tonnage characteristics of the Resolution deposit compared to other porphyry-type deposits world-wide, copper (top), molybdenum (bottom). Selected, noteworthy deposits are labeled. The dashed diagonal lines represent the total contained metal. Modified from Seal (2012) and Sinclair (2007).

A similar grade analysis to that of Mudd et. al. can be seen in, Figure 3, from Kloppenburg (2017), showing Resolution to be one of the highest grade copper porphyry deposits in the world.

### Mining Cost and Production Capacity

SWCA has used Dundee Capital Markets, 2012, *An Introduction to Underground Mining* to bracket underground mining cost estimates (DEIS 2019). SWCA also estimated that all of the underground mining methods evaluated, except block caving, could accommodate backfilling which could prevent subsidence. All the underground mining methods costs, with the exception of cut-and-fill mining, were the same cost to approximately twice the cost of block caving (SWCA 2017). This cost range is not unreasonable to evaluate further as viable alternatives, given the uses and resources that could be saved by eliminating subsidence.

Production volume for dry tailings for underground backfill was also a consideration, and was used as a discriminating factor for mining method evaluation in the DEIS alternatives screening. It was noted that “The process of using dry stack tailings methods has not been done at the scale of the proposed GPO production scale (130,000 tons per day). The industry maximum of successful dry stack production is 20,000 tons per day.” (DEIS 2019).

However, it should also be noted that the US Forest Service recently approved dry stack tailings at the Rosemont Mine at a production rate of 75,000 tons per day. Since only approximately half of the tailings are typically backfilled in an underground mine, the dry tailings production rate approved at Rosemont

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would be virtually identical to the rate needed for backfill at Resolution. Dry tailings/backfill production rate should not be a barrier to underground mining at Resolution.

### Subsidence

Mining is predicted to result in a “Large, visible crater with cave angles of 70 to 78 degrees and with a depth between approximately 800 and 1,115 feet at the end of mine life ... the fracture limit is estimated to extend to within approximately 1,115 feet (340 m) from Apache Leap, and to approximately 3,445 feet (1,050 m) from Devil’s Canyon. The fracture limit area is roughly 1.8 miles in diameter.” (DEIS 2019).

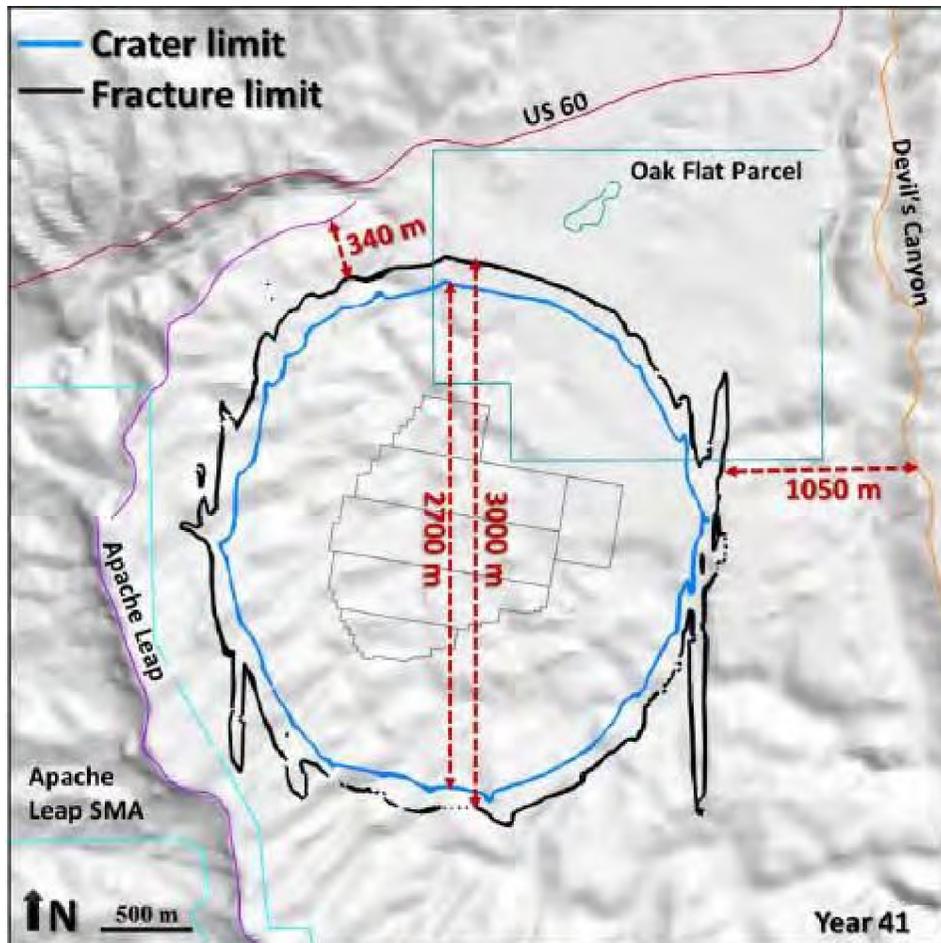


Figure 16 (DEIS 2019) Predicted crater (blue) and fracture limits (black) at the end of mine life.

It should be noted that if the subsidence angle turns out to be less than the 70 to 78 degrees predicted, especially after mining ceases, the fracture zone shown in Figure 16 (DEIS 2019) would move closer to Apache Leap. Any mining of a deeper resource, if done by block caving, the only method considered by Resolution Copper, the fracture zone would likely also widen. As a result, a significant part of the deeper resource would need to be sterilized to protect Apache Leap. With underground backfill this significant part of the resource could be mined.

Underground mining with backfill was inappropriately eliminated from consideration as an alternative because the impacts that could be avoided were not given proper consideration. In addition, the Forest Service expert undervalued the orebody, and dry tailings for backfill is technically feasible as the Forest Service approval of Rosemont clearly demonstrates.

**Values Lost Due to Subsidence (DEIS 2019)**

The environmental and social values lost due to subsidence are listed in the DEIS. These include:

*“The subsidence area (approximately 1,560 acres of NFS lands, prior to the land exchange) would be lost for public access in perpetuity. Based on current knowledge, the steep and unstable slopes of the subsidence area are projected to be unsafe for future public access.”*

Tribal Values and Concerns

*“Development of the Resolution Copper Mine would directly and permanently damage the NRHP-listed Chi’chil Bildagoteel Historic District TCP. Other large-scale mine development along with smaller transportation, utility, and private land development projects in the greater Superior region may also affect places and resources of value to Native Americans, including historical and ceremonial sites and culturally valued landforms and features.*

*Dewatering or direct disturbance would impact between 14 and 16 groundwater dependent ecosystems, mostly sacred springs. While mitigation would replace water, impacts would remain to the natural setting of these places.*

*Burials are likely to be impacted; the numbers and locations of burials would not be known until such sites are detected as a result of mine-related activities.*

*Under this or any action alternative, one or more Emory oak groves at Oak Flat, used by tribal members for acorn collecting, would likely be lost. Other unspecified mineral- and/or plant-collecting locations would also likely be affected; historically, medicinal and other plants are frequently gathered near springs and seeps, so drawdown of water at these locations may also adversely affect plant availability.”*

Area of Watershed Lost

*Queens Creek            1.76 square miles*

*Devils Canyon        0.94 square miles*

Water Resources: Groundwater Quantity and Groundwater-Dependent Ecosystems

*“When block-caving occurs, groundwater impacts expand to overlying aquifers and two more groundwater-dependent ecosystems (springs) are anticipated to be impacted. ... Groundwater supplies in Superior and Top-of-the-World could be impacted by groundwater drawdown but would be replaced through mitigation.”*

*“After closure, the reflooded block-cave zone is anticipated to have poor water quality (above Arizona water standards).”*

Water Resources: Surface Water Quantity

*“There would be a reduction in average annual runoff due to the subsidence crater capturing precipitation, amounting to 3.5% at the mouth of Devil’s Canyon, and 3.5% in Queen Creek at Whitlow Ranch Dam.”*

Queen Creek and Tributaries

*Queen Creek above Superior: “Reduction in surface runoff volume due to subsidence is estimated to be 18.6% at Magma Avenue Bridge (see Section 3.7.3, Surface Water Quantity). Reduction in runoff volume could reduce amount of water temporarily stored in shallow alluvium or fracture networks. Impacts above Superior could include a reduction or loss of spring/stream flow, increased mortality or reduction in extent or health of riparian vegetation, and reduction in the quality or quantity of aquatic habitat from loss of flowing water, adjacent vegetation, or standing pools.”*

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Queen Creek below Superior: *“Reduction in surface runoff volume due to subsidence is estimated to range from 13.4% reduction at Boyce Thompson Arboretum to 3.5% reduction at Whitlow Ranch Dam. Channel largely ephemeral and habitat is generally xeroriparian in nature, accustomed to ephemeral, periodic flows. Impacts on this type of vegetation would be unlikely due to surface flow reductions of this magnitude.”*

Devil’s Canyon

*“Reduction in surface runoff volume due to subsidence ranges from 5.6% reduction at DC8.1C to 3.5% reduction at confluence with Mineral Creek (see Section 3.7.3, Surface Water Quantity). During critical dry season (May/June), percent reductions are approximately the same. Flow reductions could contribute to a reduction in the extent and health of riparian vegetation and aquatic habitat.”*

Rancho Rio Canyon

*“A portion of the Rancho Rio Canyon watershed is within the subsidence area, and a reduction in surface water volume is anticipated.”*

Springs in the Queen Creek Basin

*“Under the proposed action, drawdown continues to propagate well beyond 200 years. The modeled groundwater level trends generally suggest maximum drawdown does not occur until 600 to 800 years after the end of mining at the distant spring locations (Morey 2018c).”*

Longer Term Modeled Impacts – Water Supplies

*“The predicted groundwater trends suggest that the impacts shown ... for Top-of-the-World are likely the maximum impacts expected (Morey 2018c). However, the groundwater trends for wells in Superior ... suggest that maximum drawdown would not occur until roughly 600 years after the end of mining. Impacts on groundwater supplies relying on the regional deep groundwater system near Superior may continue to worsen beyond the results report(ed) ...”*

Recreation

*“All public access would be eliminated on 4,933 acres. Rock climbing opportunities at Euro Dog Valley, Oak Flat, and other portions of the mine area would be lost under all action alternatives but would be partially mitigated by new climbing area(s) set aside by Resolution Copper.”*

*“The land exchange would have significant effects on recreation. The Oak Flat Federal Parcel would leave Forest Service jurisdiction, and with it myriad recreational opportunities currently available and used by the public. The Oak Flat bouldering area offers freestanding boulders and small cliff-lined canyons with over 1,000 documented boulder routes and problems. The area has held various bouldering and climbing competitions as recently as 2016 and the Phoenix Bouldering Contests and Phoenix Boulder Blasts through 2004; all climbing and bouldering areas would be lost when the Oak Flat Federal Parcel transfers out of Federal ownership. Additional recreational activities that would be lost include camping at the Oak Flat Campground, picnicking, and nature viewing. The campground currently provides approximately 20 campsites and a large stand of native oak trees. It also is boasted as an important birding destination with approximately 183 different species reported by birders.”*

Summary

This is an impressive list of predicted impacts, yet the DEIS treats these predictions as a fait accompli. These are, however, preventable losses. For the operators of a large, rich, ore body to take into account a multitude of significant environmental and social resource losses that can be prevented by conducting

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responsible mining instead of maximizing economic profit, which will have little long-term benefit in the area of the mine, is not too much for a responsible land manager, like the US Forest Service, to require.

### **Tailings Facility – Embankment Type**

The Preferred Alternative, Alternative 6 (Skunk Camp) – North Option, would require a centerline sand dam for the NPAG tailings, and downstream sand dam construction for PAG tailings. The NPAG embankment would contain an underdrain system comprising sand and gravel blanket and finger drains (primarily along main drainages, with some extended beneath the NPAG beach) to maintain a low saturated surface in the tailings embankment and to intercept and direct seepage from the impoundment. The PAG cells would be behind (upstream) and ultimately covered by the NPAG tailings.

### Construction Type

This is a significantly safer approach to tailings disposal than the upstream dam with mixed NPAG and PAG tailings proposed by Resolution Copper. Centerline/downstream-type construction is much safer in terms of both potential static and seismic failures than upstream construction.

### Wet versus Dry Closure

Dry closure is considered safer than wet closure, because with a wet closure where containment is lost the tailings usually flush from the breach and travel downgradient with considerable force and for a great distance. In the case of wet PAG tailings, if containment is lost then oxidation of this material can be rapid and widespread. The closure scheme proposed for Alternative 6 – Skunk Camp would have a drain system under the NPAG tailings that could be utilized to keep these tailings largely unsaturated. Although the ideal dry closure would be with dry tailings, drained tailings is the next best choice.

And, although the two PAG impoundments would be wet, they are also totally contained behind and buried by the NPAG tailings. This provides an additional physical barrier to release in the event of a structural failure.

### Breach Analysis

A breach analysis shows how far tailings could be released under several scenarios, including normal operating conditions, and during/after a severe storm event. A breach analysis for the Resolution alternatives has yet to be completed.

A breach analysis could/should have been done for the Preferred Alternative, Alternative 6 (Skunk Camp) – North Option. This is not a difficult analysis.

### Seismic Risk

Use of the 1:10,000 year return period earthquake as the design earthquake for the tailings dams, as is done for the Preferred Alternative, is the appropriate choice for the design event. Too many agencies use a lesser earthquake as the design event for a structure that is meant to function in perpetuity, so it is good to see the US Forest Service require the appropriate design earthquake.

The seismic analysis for the EIS is largely based on a report by Wong et. al (2013). The Wong et. al (2013) report was focused on analyzing four specific sites that were under consideration at that time: the Far West Tailings Management Area: Far West 1 and Far West 2; the Near West Tailings Management Area; and, the Pinto Valley Operations (PVO) Tailings Management Area. The Proposed Alternative 6 (Skunk Camp) was not analyzed in this report.

The Preferred Alternative, Alternative 6 (Skunk Camp) – North Option, would occupy the upper portion of Dripping Spring Valley, the northeastern slopes and foothills of the Dripping Spring Mountains, and

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the southwestern foothills of the Pinal Mountains, including a 4-mile reach of Dripping Spring Wash, a 3.5-mile reach of Stone Cabin Wash, and a 4.8-mile reach of Skunk Camp Wash.

Cornwall, Banks, and Phillips (1971), map an extensive fault structure running the length of Dripping Spring Wash. This fault is not mentioned in the Wong et al (2013) report or the DEIS (2019). This fault most probably bisects the dams and impoundments, so should merit further investigation and discussion in the DEIS.

The DEIS does not specify the location of the 1:10,000 year event, or the assumed magnitude of this event. In the Wong et al report (2013) it is noted that the values calculated for the PGA are "significantly lower" than the values from the USGS Probabilistic Seismic Hazard Analyses (PSHA) and (USGS 2008). The USGS National Seismic Hazard Maps are typically used to develop the Probabilistic Seismic Hazard Analyses (PSHA) for a mine location. The US Forest Service should require the use of the most conservative estimates for seismic events because of the extremely long time period for which tailings facilities are planned to function.

In addition, the USGS has updated its National Seismic Hazard Maps (2014) since the Wong et. al. report (2013) was written. At a minimum the seismic study needs to be updated to reflect current information, and to include an analysis of the Preferred Alternative site, which was not included in the 2013 report.

The EIS must use up to date information, make conservative assumptions about the size and location of the maximum credible earthquake, and must disclose the location and magnitude of the maximum credible earthquake used for the design earthquake for the tailings dam.

#### Alternative 6 Tailings Pipeline – North Option

The tailings pipeline for the Preferred Alternative, Alternative 6 (Skunk Camp) – North Option, will run along and across several faults in the route. There is no seismic risk for the tailings pipeline in the DEIS or in the Failure Modes and Effects Analysis (KCB 2019).

Tailings pipeline failure during an earthquake should have been considered in the DEIS and FMEA. In addition, tailings pipeline failures are common events at large copper mines (Gestring 2019), and should have been addressed in the FMEA.

#### **Reclamation Financial Assurance**

NEPA Section 102 (C) requires all agencies of the Federal Government to include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on:

- (i) the environmental impact of the proposed action ...

For the purpose of this discussion focus on the words "*major Federal actions significantly affecting the quality of the human environment*". Although NEPA does not define "*the human environment*" it is clear that it is more than, but includes, the natural environment. NEPA directly addresses economic considerations a number of times, so it can be argued that economic considerations, which are clearly addressed in most EISs in the context of jobs, taxes, and community impacts. If a financial surety is required by law, which is required in Arizona, the EIS should also consider the potential economic impacts on the mining company of obtaining a financial surety for closure and/or a catastrophic failure, as well as the potential impacts to the public should the financial surety be absent, or inadequate.

A financial surety for mine closure, and post-closure monitoring and maintenance, today typically runs in the tens to hundreds of millions of dollars. If perpetual water treatment is required, then the financial surety required typically doubles. If a company goes bankrupt during or after mining, the financial surety

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must be adequate to close the mine and perform post-closure monitoring and maintenance. If the financial surety is not adequate, then the public must either provide this money, or suffer the environmental damage associated with leaving the mine in its then-existing state.

It is not atypical that hundreds of millions of dollars are at stake with a closure financial surety. This is clearly a potential impact on the economic and/or natural human environment, and should be disclosed/evaluated in a project EIS, as National Environmental Policy Act (42 USC § 4332) dictates.

However, in the DEIS (2019) it is stated:

*“The cost estimates for the reclamation financial assurances are based on the final design of the facility, would be developed after the NEPA process, and would not be finalized until the final GPO is approved.”*

This is a failure to analyze a very significant potential impact to the public. In addition, it also means the public will have limited, or no, opportunity to comment on the size or adequacy of the financial surety.

Thank you for the opportunity to comment on this Draft EIS.

Sincerely;



David M. Chambers, Ph.D., P.Geop.

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# **EXHIBIT 1**



*Secretary Brooke L. Rollins*

Washington, D.C. 20250

April 17, 2025

REID NELSON

*Executive Director*

*Advisory Council on Historic Preservation*

*401 F Street NW, Suite 308*

*Washington, D.C. 20001-26*

Re: *Resolution Copper Mining Project and Land Exchange*  
*Tonto National Forest, Pinal County, AZ*  
*ACHP Project Number: 012344*

Dear Mr. Nelson:

As the Advisory Council on Historic Preservation (ACHP) currently lacks a Chair or Vice Chair, I am addressing this to you as the Executive Director. This letter responds to the ACHP's March 29, 2021, final comments on the proposed Resolution Copper Project (RCP). As you know, Congress mandated the exchange in the Southeastern Arizona Land Exchange and Conservation Act, 16 U.S.C. 539p (SALECA) as part of the 2015 National Defense Authorization Act. As part of its efforts to "assess the effects of the mining and related activities on the Federal land conveyed to Resolution Copper under this section on the cultural and archeological resources that may be located on the Federal land" as outlined in SALECA (16 U.S.C. 539p (c)(9)(C)), the U.S. Forest Service (USFS) engaged in a process under Section 106 of the National Historic Preservation Act (NHPA) to develop a Programmatic Agreement (PA) to address mitigation of potential adverse effects to cultural resources. I appreciate the ACHP's substantial involvement throughout this complex consultation, your leadership in developing the PA, and your guidance to all parties throughout the process.

The Tonto National Forest (TNF) consulted on the development of the PA with the Arizona State Historic Preservation Officer (SHPO), 15 Tribes, representatives of local governments, public utilities, other federal and state agencies, the ACHP, and other interested individuals and organizations, which are reflected in the consultation documents in the project record. All consulting parties agreed on the adverse direct effects on historic properties expected to result from mining after the land exchange takes place. All signatories signed the PA developed to mitigate those effects, except for your organization. Although the ACHP participated in the negotiation and development of the PA, the ACHP later determined that further consultation would be unproductive and therefore, terminated consultation pursuant to 36 C.F.R. § 800.7(a)(4) on February 11, 2021 (Letter. Fowler to Torres, ACHP Project # 012344). The ACHP reaffirmed that termination with final comments in a letter dated March 29, 2021 (Letter. Gonzales to Vilsack).

In accordance with NHPA and its implementing regulations at 36 C.F.R. § 800.7(c)(4), I have thoughtfully considered each of your comments, as well as the concerns expressed by Tribes, consulting parties, and the public. I understand and appreciate your findings and recommendations and have taken them into account in reaching my final decision to publish the FEIS and draft Record of Decision. This letter and the attached summary of my rationale serve as documentation of the United States Department of Agriculture's decision as required by 36 C.F.R. § 800.7(c) in response to your letter dated March 29, 2021. This concludes the NHPA Section 106 process. A copy of this response will be provided to all consulting parties and will be made available to the public.

Sincerely,



Brooke L. Rollins

Secretary

U.S. Department of Agriculture

**Attachment 1: Response to Advisory Council on Historic Preservation (ACHP)  
Recommendations, Letter dated March 29, 2021**

- 1) *The United States Department of Agriculture (USDA) should work with the Administration and Congress to take immediate steps to amend or repeal the legislation directing the transfer or otherwise prevent it from happening as proposed.*

Per the Anti-Lobbying Act (18 USC 1913) and subsequent guidance issued by the Department of Justice (13 Op. OLC 300 (1989) and OLC, Guidelines on 18 U.S.C. 1913, at 2 (Apr. 14, 1995)), neither the USDA nor any other agency can advocate for legislative action.

- 2) *USDA should use further discussions with Tribes and other stakeholders to develop and evaluate alternatives and further modifications to the undertaking that might avoid adverse effects while also pursuing additional steps to modify or prevent the land transfer.*

As noted above and documented in the unexecuted Programmatic Agreement (PA) and other documents in the project record, USDA worked extensively with Tribes and other stakeholders to identify potential modifications and mitigation that might avoid adverse effects.

Several alternatives were considered. The Skunk Camp alternative was developed as a direct result of Tribal consultation to address concerns raised by Tribes about adverse effects to resources of concern that would be caused by other alternatives. None of the alternatives allow for adverse effects to be avoided completely, particularly the adverse effects resulting from the statutorily mandated exchange of the Oak Flat parcel out of federal ownership (as required by the Southeastern Arizona Land Exchange and Conservation Act (SALECA)). While the Forest Service has continued to consult with Tribal partners under the authority of the SALECA, it appears, as you noted in your letter, that further consultation in this case is unlikely to result in the development of viable modifications or mitigations that have not already been considered, and that further consultation would likely be unproductive. Nevertheless, in 2021, the Secretary of Agriculture ordered the re-initiation of consultation with Tribal nations after the Final Environmental Impact Statement (FEIS) was rescinded to redouble the agency's efforts to develop strategies to minimize adverse effects within the allowable constraints of the SALECA. To date, additional consultation with the Tribes has not uncovered other potential mitigation or alternatives that would allow USDA to comply with the SALECA while avoiding adverse impacts to Tribal interests. Tribes did express some concerns with the analysis in the FEIS, and the Forest Service has provided additional analysis and explanation in light of these concerns.

With regard to preventing the land exchange, USDA cannot prevent the land exchange. The land exchange was mandated by Congress in the SALECA, and any modification or repeal of that statute would require a further act of Congress. As you noted in your final comments: “[t]he constraints placed on the consultative process due to the legislated nature of a

substantial portion of the undertaking juxtaposed with the magnitude of the adverse effects to historic properties severely restricted the Tonto National Forest's (TNF) ability to consider alternatives to avoid or minimize those effects[.]” The language of the SALECA does not provide any latitude for the USDA to “prevent” the land exchange.

It is also important to recognize that the SALECA limits the authority the USDA will have over most elements of the proposed Resolution Copper Mine (RCM) because once the land is exchanged, the project will be almost entirely on private land.

- 3) *If USDA chooses to proceed with the undertaking as described, the Forest Service should commit to carrying out mitigation measures in the proposed PA, in consultation with the consulting parties.*

The TNF including partners, consulting Tribes, the State Historic Preservation Office (SHPO), ACHP, and others, invested considerable time and effort to identify mitigation measures that might possibly address potential adverse effects to historic properties. The unexecuted PA memorialized the results of those efforts. USDA remains committed to carrying out the mitigation measures outlined in the now-terminated PA and to working with RCM to ensure they also remain committed to the mitigation measures agreed upon.

With the termination of the PA, RCM has been developing an instrument that will ensure the Tribal programs originally identified in the PA may still be funded by the company. Several consulting parties maintain that the proposed Tribal programs will not adequately resolve adverse effects to Oak Flat and that Tribes remain opposed to the mine. However, USDA is legally bound by the SALECA, which directs the TNF and RCM to seek to find mutually agreeable measures to help mitigate impacts (SALECA Sec. 539p(c)(3)). The TNF is working with RCM to develop an agreement that would, among other things, direct completion of data recovery at historic properties within the federal parcel. However, the TNF does not have authority to enter agreements to implement mitigation on State, private, and Tribal lands.

- 4) *The Forest Service should evaluate how the Regional and Washington Offices can provide more timely guidance and support for controversial or challenging Section 106 consultations.*

USDA remains committed to ensuring compliance with our consultation obligations under the National Historic Preservation Act (NHPA) and recognizes the importance of cultural and historic lands and resources for Tribes. That is why the Secretary of Agriculture directed the Forest Service to rescind the FEIS for the land exchange and to engage in additional consultation with affected Tribes. The Forest Service ensures coordination with decision makers at all levels necessary within the organization, especially on controversial or challenging projects.

In general, for projects that are complex or controversial, the Regional and Washington Offices are involved to provide subject matter expertise, to address projects that may present

challenges, and to support forests in their assessments and decisions. We will continue to ensure that we are meeting our goals to involve appropriate levels of expertise in the Regional and Washington Offices early in the process.

- 5) *The Forest Service should work to identify and implement opportunities to better coordinate environmental and historic preservation reviews for large-scale projects.*

Coordination of environmental and historic preservation reviews can be an especially useful strategy, as it offers both a faster, more efficient timeline and provides more complete and effective analyses. The Forest Service continually strives to improve the coordination and integration of these reviews for projects of all sizes, including looking for opportunities to improve the internal policies that provide the framework for ultimate success. The ACHP has provided valuable guidance on this very topic, including *NEPA and NHPA: Handbook for Integrating NEPA and Section 106*. The Forest Service appropriately utilizes the guidance that the ACHP (and other consulting parties, including SHPO) provides on efficiently and effectively fulfilling our obligations.

Specific to the Resolution Copper Project (RCP), throughout the NHPA consultation process, the TNF coordinated extensively with the consulting parties regarding NHPA and National Environmental Policy Act (NEPA) timelines, communicating project updates as soon as new information and analysis became available. These extensive efforts are well documented in the project record. The TNF conducted well over 100 meetings with consulting parties and Tribal nations, hosted field visits, and provided adequate time for the parties and Tribes to communicate their unique concerns and discuss proposed mitigation options. The TNF has undertaken enormous efforts to provide extensive opportunities for parties to engage on this project.

We have endeavored to complete all consultations, including NHPA Section 106 consultation, before issuing a Notice of Availability for the FEIS. All parties, which were signatories to the PA, signed that document prior to the issuance of the notice for the FEIS, except the ACHP, who guided the negotiation and composition of the PA throughout the project before deciding to terminate. The TNF anticipated ACHP would sign the PA and therefore moved forward with publication of the notice for the FEIS without the PA fully executed because the effects of the mining and related activities on the Federal land were fully disclosed in the FEIS and not in dispute. The ACHP was very closely involved and supportive of the PA until the Section 106 consultation was unexpectedly terminated. However, in response to these events, the Secretary of Agriculture instructed the Forest Service to re-initiate consultation with Tribes after the FEIS was rescinded to make another effort to address Tribal concerns.

- 6) *The Forest Service should pursue initiatives to strengthen early coordination with Tribes in this Region regarding proposed mining activities.*

As part of a larger effort to proactively involve federally recognized Tribes and Alaska Native Corporations in Forest Service programs, project design, and implementation and to closely align Forest Service priorities with Tribal priorities, the Forest Service Office of Tribal Relations (FS-OTR) reviewed its national policies to determine where the Forest Service can strengthen Tribal outreach and coordination efforts. In February 2023, the Forest Service issued *Strengthening Tribal Consultations and Nation-to-Nation Relationships: A USDA Forest Service Action Plan* towards that end.

Regarding the RCP specifically, the Forest Service initiated Tribal consultation in 2002 when RCM first proposed the project. At that time, the TNF initiated an Environmental Assessment (EA) a full 12 years before the passage of the SALECA and now over 20 years ago. In 2017, the San Carlos Apache Tribe sued the Forest Service claiming that project consultation was inadequate and flawed. In 2017, the District Court of Arizona found in favor of the TNF based upon the record of consultation which has grown significantly since that initial litigation.

The agency's goal with the PA for this project was to provide a thorough process for identifying historic properties, cultural resources, and a process for addressing effects. The PA included provisions for future identification of and development of treatments for historic properties. USDA remains committed to implementing these processes and the mitigation measures as the RCP moves forward.

The Forest Service will continue to look for opportunities to improve processes for government-to-government consultation with federally recognized Tribal nations.

USDA appreciates ACHP's engagement and thoughtful recommendations. The NHPA is important to help federal agencies identify and address impacts of management of public lands. Addressing impacts to those lands is of the utmost importance to the USDA. The USDA and the Forest Service are committed to fulfilling our legal responsibilities under the SALECA.

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**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

**GOUYEN BROWN LOPEZ, et al.,**

*Plaintiffs,*

v.

**UNITED STATES OF AMERICA, et al.,**

*Defendants.*

Civil Action No. 1:25-cv-02408-TJK

**DECLARATION OF  
GOUYEN BROWN LOPEZ**

I, Gouyen Brown, under the penalties of perjury state and declare:

1. I am over the age of 18 and have personal knowledge of all of the contents of this declaration.
2. I am an Apache woman and I practice the Apache religion as it was taught to me.
3. From my early childhood, I have memories of visiting and attending ceremonies at Oak Flat. Some of my earliest memories are being at dances as a young child where I would run and play with my cousins. I was too young to understand the significance of the ceremonies and the place then, but Oak Flat was a place where I felt safe.
4. As I grew up, and especially after my Sunrise Ceremony, I began to understand more deeply the significance of Oak Flat.
5. Our religious beliefs are a part of how we have lived as Apache forever. Our sacred places are where we go to pray. It is like when Christians will go to a church. But for us it is not in a building. It is in nature at Oak Flat. At Oak Flat I am most closely connected to Usen and to Mother Earth. And at Oak Flat we encounter the Ga'an. They are our protectors, like angels. They come to our aid when we need them. In our prayers and songs and dances they are protection for us. The Ga'an come down and they protect our people.
6. I had my Sunrise Ceremony at Oak Flat in 2019.
7. The Sunrise Ceremony is where an Apache girl becomes a woman. The ceremony takes place over several days and the preparation starts months before.

8. My ceremony was at the end of the week, starting on Friday. But the preparations began long before and involved collecting materials and creating the clothing and instruments for the ceremony.

9. For my ceremony, I moved onto Oak Flat on Monday. As a part of the ceremony the girl builds a traditional Apache house, called a wickiup, where she will live for the remainder of the dance. Building the house teaches the girl what she needs to go through to become a woman. The house is made of trees and leaves and tied with a rope made from the ground. This portion of the ceremony teaches a girl that she is able to house and provide for her children using only what Mother Earth has provided for her to survive. Older women who have been through the process before help the girl put the house together. For my ceremony, my aunts and cousins who had their dances before helped me build my house. And I'll be able to help my sister build her house when she has her dance.

10. For the girl and the dancers, preparation continues throughout the week. For my ceremony, we started rehearsing the dances on Wednesday and Thursday. Those days are when the camp singer starts singing the songs and when the girl and her family build the kitchen and the dance ground for the ceremony. Those days are for the close family. For my ceremony it was a small and intimate time before more family, friends, and community arrived.

11. The official start of my ceremony was Friday. On that first day, the girl wakes up before the sun and she starts by making food. I made four different types of bread—donkey bread, ash bread, fry bread, and tortillas. The food is a gift for the girl's godmother and for the medicine man who guides her through her ceremony and dances. At my ceremony, I danced a basket full of the four breads over to my medicine man and my godmother. I offered the bread to thank them for taking me in and for helping me through this dance. As I prepared the bread, I danced over everyone and over the food.

12. On this day, others are also making food to thank everyone who is coming and to prepare for what is about to happen.

13. Later on the first day, there is the Dressing. During the Dressing, the medicine man gives the girl the buckskin clothing that he has prepared for her. And he gives her the cane that he has made. The ceremony incorporates many elements of the cycle of life and the four phases of life (one is baby, two is a teenager, three is adult, and four is when you are old). Four is a significant number for the Four Ways and also the four parts of the circle of life. Many elements of the ceremony and the dances incorporate this.



14. The cane is given as support and it is what the girl will use once she is elderly. It is made from a strong wood by a medicine man and it helps her get through her transition to womanhood. So she will have it to use again when she is elderly and it is a part of coming through the full circle.

15. After the Dressing, there are many songs and then those in attendance pray for the girl. Then she bangs her cane on the ground for the first time, which symbolizes entering the first corridor of her space.

16. On the first night, there is bonfire and the camp singer sings songs. This is in preparation for what is to come the next day, which is the longest day with the most dances.



17. On the second day, the dances start before the sun comes up. On this day there are 32 dances and songs throughout the course of the day. The dances on this day face the sun and are about preparing for the hardships of life. To me this day is to teach that life is always going to be hard and that we are supposed to go through hardships and they affect and change us for the better. But learning to go through hardship teaches you that you can overcome it.



18. The second day of my ceremony was Saturday. In addition to the many dances, we also put out fruits and candy and other items as gifts for those who were present and there as support. Then there is a blessing prayer where the godmother and godfather and others pray for the young woman. For me this symbolizes the people who the girl will be able to rely on later in life. This was a very emotional part of the ceremony for me.

19. The night of the second day is when the Ga'an arrive. It is always five girls that dance that night. And there is a girl behind each Ga'an dancer. The girls follow the Ga'an and it represents that the Ga'an are there to guide you in life and you follow them. This is a dance that takes a lot.

But the Ga'an are there to help and guide us and tell us where to go and what to see. The Ga'an coming down is a blessing and a prayer.

20. The final day of the Sunrise Ceremony starts with a dance. The girl is under the teepee in her house. Her godfather comes to get her and takes her to get her godmother. This is symbolically taking her out of her house and the godfather and godmother taking her into their family. This shows her that her new family is with her—they are all dancing with her. Then the girl is painted with a special white paint. The paint is made from white sand, earth, and water and is blessed. The girl is painted all over to represent the White Painted Woman who came from the ground at Oak Flat. She is a central figure in our way as Apache women and who we look up to. After the girl is painted all over, her godmother wipes her eyes. When her eyes are cleared, she is a woman.



21. When I was young, I was told that I would see the world differently after my godmother wiped the paint from my eyes. I was told many things that I would experience in my ceremony. I understood the symbolism, but I was not sure that I would feel any differently when I went through the dances and the painting and the other parts. But when I had my ceremony, it happened like I had been told. When I opened my eyes after I was painted, I saw the world differently. My ceremony was a transformational moment in my life.

22. The elements we use in the ceremony connect us to the earth. They come from the holy ground at Oak Flat. The white paint is made from sand, earth, and water from a sacred spring. And the girls are painted with it to embody the White Painted Woman in becoming a woman. It amazes me how much earth we use in our dance. We dance on the ground with dirt and we use wood that we gather ourselves. Everything the girl is wearing is from Mother Earth. The necklace and cane are wood. The buckskin the girl wears is from an animal. There are feathers and other pieces with buckskin involved. Anything we use, we pray for and dance for. When we take these things we let Mother Earth know it is going to be put to good use and thank her for letting us use them.

23. Having my Sunrise Ceremony at Oak Flat connects me to Mother Earth, to the White Painted Woman, and to Oak Flat in a unique way. I cannot have that same connection anywhere else.

24. Oak Flat is where I became an Apache woman. It is where I was taught the circles of life. And I hope to experience all of the stages of the circle of life there. When I have kids of my own, I will take them to Oak Flat and show them where my ceremony was and let them have that experience. I want to show my kids where my house and the campground and the dance were. I can still envision it, and it makes me so happy to know I can go back to a place where I can physically be there to see it and feel what I felt in my ceremony.

25. I remember every little thing about my ceremony. I remember where I ran back from the dance to the house I built and where I almost tripped over a stone. I remember where every part of the ceremony happened. I remember where I ran to and the parts of the dance where I was growing to be a woman.

26. Taking away Oak Flat is taking away my experience and my way of teaching where I have gone to be with my elders and ancestors. My grandpa was at my dance. He passed away two years ago. I feel a special connection to him when I am at Oak Flat. When I go to Oak Flat, I am able to be back in my roots and to hear the songs and to feel the connection. Oak Flat is home. This is where I feel happiest and safest. And I want my daughters to have these places that are sacred to

me. I want to be able to teach my kids about these things at Oak Flat and really show them what it is to be Apache and to have these places that are sacred to us.

27. My connection to Oak Flat is an essential part of being Apache. And destroying Oak Flat would take away a part of my identity, my humanity. If a church were to be taken away, they can rebuild it somewhere else because it's a building. But you can't rebuild Mother Earth. We can't just dig up Oak Flat and take it somewhere else. And even if we could, it's not right. Because this is where it was created, where it is supposed to be, and where its meant to be. My sacred practices that are tied to Oak Flat cannot be taken somewhere else.

28. The government has slowly stripped away pieces from us and the sacred places are being taken away one by one. They take one and say you have the others. But they take more and more and eventually there is nothing left, no more places to go. When you take everything away there will be nothing left. Part of what makes us Apache is being able to practice at Oak Flat. We go to Oak Flat to learn and look on our ancestors and our way of life and to connect with our spirits, our Ga'an, and our deities. Taking that away is taking away what makes us human. We are created and given life to witness all that Mother Earth has given us. By destroying Oak Flat you are destroying that life and that purpose.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on July 24, 2025.

  
Gouyen Brown Lopez

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

**GOUYEN BROWN LOPEZ, et al.,**

*Plaintiffs,*

v.

**UNITED STATES OF AMERICA, et al.,**

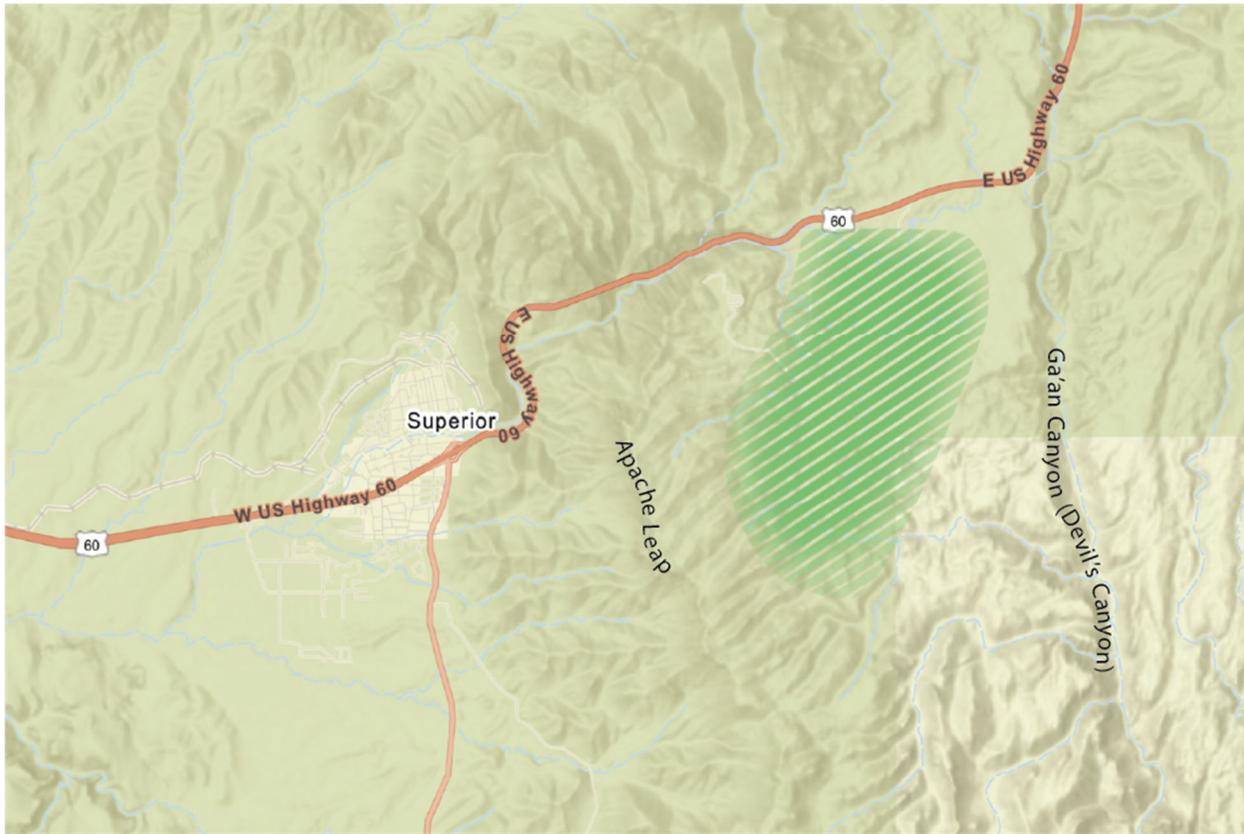
*Defendants.*

Civil Action No. 1:25-cv-02408-TJK

**DECLARATION OF SINETTA LOPEZ**

I, Sinetta Lopez, under the penalties of perjury state and declare:

1. My name is Sinetta Lopez. I am over the age of 18 and have personal knowledge of all of the contents of this declaration.
2. My mother is San Carlos Apache and my father is Pomo. I grew up spending time on the San Carlos Apache Reservation in rural Southeast Arizona.
3. Since I was a child, I learned about the significance Oak Flat as a sacred and religious place for the Apache people. This place has been important to our people since time immemorial. Since I was a child, I have gone there to take part in religious ceremonies, prayers, and other practices. I still go there to practice my religion and I take my daughters there to teach them our Apache religion.
4. Oak Flat is located east of Superior, Arizona, between Apache Leap and Ga'an Canyon. This map shows the area where certain critical sites are located, including sacred ceremonial grounds, ancient oak groves, sacred springs, medicine-gathering areas, and petroglyphs. This is where we hold many of our sacred ceremonies.



5. Growing up, my mother and maternal grandmother talked about our Apache ancestors and the places that were sacred to them. I was raised always knowing that Oak Flat is a sacred place to us. They took me to Oak Flat to gather berries, connect with our ancestors, pray, and be in the presence of the good spirits and deities that reside there. When we were at Oak Flat, my grandmother would always pray.

6. As an Apache, Mother Earth is particularly important. The Earth is what fed us and gave us our medicine and the resources we use for religious ceremonies. Our prayers talk about the trees, water, and the sacred mountains. And at Oak Flat there is a unique connection to the Creator and the event of creation. The White Painted Woman was born there. This is the birthplace of our religion, the home that we are connected to. There is power there and a connection to the Creator and the Ga'an that is not present elsewhere.

7. There are sacred springs that I visit at Oak Flat. There are ancient petroglyphs that are amazing. When we see those petroglyphs, we know we are stepping to the place where our ancestors lived and worshipped. It solidifies my connection with our ancestors who lived and worshipped here. I cannot experience that same spiritual connection to our people and our faith anywhere else. This is where our people have lived and died. That is the most important thing for us.

8. I am a mother. As a mother and an Apache woman it is very important to me to raise my children in our Apache religion. My oldest daughter, Gouyen Brown, is 21 years of age. I also have an 11-year-old daughter, L.B.

9. Beyond protecting my own religious practices, I want to protect my daughters' ability to grow up being a part of the Apache religion and culture and particularly the connection to Oak Flat.

10. As a mother, I have worked to make sure that my daughters understand their Apache history, culture, people, and religion. I named my girls after Apache women who had important roles in fighting for our people. And I have worked hard to make sure my daughters are connected to their religion, culture, and people.

11. My mother was sent to the boarding schools as a child where she was disconnected from her Apache culture, language, and beliefs. So when my mother had children, it was important to her that we grow up in the Apache world. My mother made sure I spent a lot of time with my grandmother as a child, and I learned a lot of our stories from her. I learned about Oak Flat from her.

12. I want to make sure my daughters do not have this disconnect from our Apache ways that my mother experienced. So I go with my daughters to family events and ceremonies most weekends and keep taking them to Oak Flat.

13. I have raised them in our Apache faith. They learned to make their bread, which is a part of our ceremonies including the coming-of-age ceremony. They were taught to pick the acorn and berries at Oak Flat. And my daughters are learning how to sew and bead, which is part of our

culture and our ceremonies. It's important that they are reminded who they are, where they come from, and what their roots are.

14. It is important to me that my daughters understand what our Apache people believe in and what is sacred to us. My daughters have been taught and understand the sacredness of Oak Flat. They have heard the history that our people have there. Many of our family members were blessed at Oak Flat. My father was blessed there.

15. If Oak Flat is destroyed, I will be unable to pass on my faith on to my daughters or raise them with the ceremonies and spiritual experiences that are central to our Apache religion.

16. My girls have a special connection with Oak Flat.

17. My oldest daughter, Gouyen, had her Sunrise Ceremony at Oak Flat. She has a special connection to this place. It is the place that she was reborn. Oak Flat is her spiritual home. When the wikiup from her ceremony was still up, she would go and visit it there. And Oak Flat is still the place where she feels safe. When she has a bad week, she goes to Oak Flat to pray, connect with the Creator, and be at home.

18. My younger daughter, L.B., also has a special connection to Oak Flat. She suffered with Graves Diseases and was healed when she drank water from a sacred spring at Oak Flat. She has also had profound dreams and seen spirits at Oak Flat.

19. L.B.'s Sunrise Ceremony will be this year. We are planning for her ceremony at Oak Flat in October. Having her ceremony at Oak Flat ties her deeply to her sister, Gouyen, whose dances were at Oak Flat. It ties her to our ancestors who lived and held ceremonies there. It is the place of her own healing, dreams, and encounters with spirits. She cannot have that experience anywhere else. If Oak Flat is taken away, she can never have that connection. It would be devastating.

20. So much has been taken from our people. And my daughters have learned that history of how we have had to fight to keep our places and our culture and our practices. And now they see that they still have to keep fighting for their people and their places. When we are told that we should be content to hold our ceremonies at the reservation instead of at our sacred places, that is a misunderstanding of our practices. We were forced onto the reservation. It is not our home. Oak

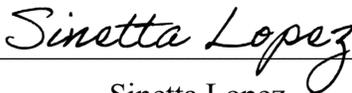
Flat is our home. There no way to replace the ceremonies and the connection that take place there. It is the original place and has a special power and connection with the Ga'an, who are angels or messengers between the Creator and humans, and the White Painted Woman or Changing Woman, the first matriarch of our people. Those connections are unique to Oak Flat. Discounting the power of that place is like saying to Christians that there isn't anything unique or special about the Church of the Holy Sepulcher or the places Jesus walked. We wouldn't let those places be turned into copper mines.

21. For my daughters, Oak Flat being destroyed would be devastating. It would take away their identity and would make it impossible to continue essential religious practices. The threat to Oak Flat is confusing and painful. It is a threat to their connection with their ancestors and the people who have passed before—especially those that have had their dances at Oak Flat.

22. If L.B. cannot have her ceremony at Oak Flat, a part of her will be missing—that is how close to Oak Flat she is. Oak Flat is all she knows and it is the place she has been connected to her religion since she was a baby. Oak Flat is central to the stories and the history she's learned about and the unique connection and feelings she gets when she's there. As a mother, to tell her that it is all going to be destroyed because they want to make money is unthinkable. I am praying that this place will be saved.

23. The threat to Oak Flat is a threat to my ability to practice our religion and pass on our religion to my daughters. This is one of the few sacred places we have left that is still alive. I want my daughters to have the right to have that spiritual connection, sacredness, and safety. It essential that our children experience this place that is sacred to our people—that we have our religion, our culture, our holy place.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.  
Executed on July 24, 2025.

  
\_\_\_\_\_  
Sinetta Lopez

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

**GOUYEN BROWN LOPEZ, et al.,**

*Plaintiffs,*

v.

**UNITED STATES OF AMERICA, et al.,**

*Defendants.*

Civil Action No. 1:25-cv-02408-TJK

**DECLARATION OF NOMIE BROWN**

I, Nomie Brown, under the penalties of perjury state and declare:

1. My name is Nomie Brown. I am over the age of 18 and have personal knowledge of all of the contents of this declaration.

2. I am an Apache woman. For myself and many other Apaches, Oak Flat is a sacred place. Some people say it is like a church. But it's more than that. It's not just our church; it's our home. It's where we come from. It's where we learn all of our teachings. It's our whole way of life.

3. My earliest memories of Oak Flat are from my father's stories. He would tell me about the ceremonies our ancestors had there and the ceremonies there that he would always participate in.

4. Oak Flat was also at the heart of my grandfather's life. I began to learn more about Oak Flat when my grandfather, who was very sick, was healed after visiting Oak Flat. We believe that his healing was the result of the blessings he gained there and the prayers he said there.

5. I had my Sunrise Ceremony at age 16, which is the ceremony in which I fully became an Apache woman. The Sunrise Ceremony fundamentally changed my life. Although I'm now 21 years old, I still think about my Sunrise Ceremony all the time. I remember everything about it.

6. As part of the ceremony, the women in my family helped me build the traditional house I would stay in during the several days of the ceremony. Before my ceremony, I had never gotten to know some of the women in my family that well. But that all changed in building the house together. I had never seen women being so strong before. I came to understand that they were there to support me as I became an Apache woman like them.



7. In spending so much time at Oak Flat, I came to feel a profound connection to it, from the water that was there to the sound of the birdsong in the morning. I got the most peaceful sleep there that I had ever had. And that connection was my gateway to understanding who I was as an Apache and where I came from.

8. At one point, when I was dancing on my knees as part of the ceremony, I became so tired that I just wanted to give up. The only way I was able to carry through was by focusing on one particular tree and trying not to think about anything else. Later, when the clay was wiped from my eyes, that same tree was the first thing that I saw. But everything had changed. I saw everything differently. I didn't know who I was until I had my Sunrise Ceremony at Oak Flat.



9. After the ceremony, the house built for the ceremony is usually taken down. But I left mine up, as a sign that we Apaches aren't gone—we're still here, and we still go to our home, Oak Flat.

10. I still practice my way of life at Oak Flat and visit it as often as I can—to attend other Sunrise Ceremonies, participate in different types of ceremonies, and to pray and worship by myself.



11. There is no other place where I have the same connection as Oak Flat. When you have your Sunrise Ceremony at Oak Flat, a piece of you gets left there. That's why you always need to go back. It grabs you and it holds you. I belong there, and nothing can bother me when I am there.

12. I want to help bring up the next generation to share our way of life. That can't be done without Oak Flat.

13. I have a niece and a nephew. My nephew just learned about Crown Dancers—the Apache men who embody the Ga'an during our ceremonies. He has a very big interest in it and loves practicing the dances.

14. My niece asks if she can be like me when she grows up—an Apache woman formed by Oak Flat. I hope that she can.

15. If I have any children of my own, part of raising them would be passing on our faith and our traditions—which would mean knowing Oak Flat like I do and experiencing that connection.

16. If the government's plan to destroy Oak Flat goes through, it would be devastating to my people and to me specifically. Not only a place where I practice my faith, but a part of me and of all Apaches, would be gone.

17. For Apaches, there is no other place like Oak Flat. It is the direct corridor to the Creator. We have a connection and experiences and practices there that we cannot have anywhere else.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on July 24, 2025.

A handwritten signature in black ink that reads "Nomie Brown". The signature is written in a cursive style and is positioned above a horizontal line.

Nomie Brown

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

**GOUYEN BROWN LOPEZ, et al.,**

*Plaintiffs,*

v.

**UNITED STATES OF AMERICA, et al.,**

*Defendants.*

Civil Action No. 1:25-cv-02408-TJK

**DECLARATION OF ANGELA KINSEY**

I, Angela Kinsey, under the penalties of perjury state and declare:

1. My name is Angela Kinsey. I am over the age of 18 and have personal knowledge of all of the contents of this declaration.

2. I am an Apache woman. My father is full-blooded Apache—Western Apache and Tonto Apache from San Carlos. My father’s mother is from the Tanasgizn clan, the Washed people. My father’s father belonged to the Hak’aye’ clan, the Grinders. My mother is non-Native.

3. I grew up in Phoenix, Globe, and San Carlos. On the reservation, my grandparents and my father shared stories with me about Apache life and our tribe’s spiritual ties to Oak Flat.

4. When my father was growing up, he and his family would spend whole weeks at Oak Flat. Nowadays, a trip to Phoenix might take two hours, but back then, the trip could take a whole day. My father and his family would camp at Oak Flat for a week or two, harvesting acorns and medicine, holding ceremonies, praying, and connecting with the Earth.

5. When I was a young girl, my family and I would often gather at Oak Flat for acorn picking, gathering medicines, and ceremonies. I remember as a small girl, I would hop in the back of a pickup truck and travel to Oak Flat with my grandmother, aunties, and cousins. I remember harvesting acorns and bringing them to my grandmother, laying them on a blanket, and sorting them—all while my grandmother and aunties told us stories about our peoples’ history and ceremonies and instructed us in traditional Apache ways.

6. To me, Oak Flat is home. When I walk the hills at Oak Flat, I feel a spiritual connection to the land. I know that I am not walking alone because I feel a connection to my tribe and my ancestors who were there since time immemorial. When I'm at Oak Flat, I know that I'm safe and where I belong.

7. I pray whenever I'm there—both the good things and the unhappy things—because at Oak Flat, I have a special connection with Usen, the Creator, and the Ga'an. I take off my shoes and plant my feet on holy ground to connect with the Creator, Mother Earth, and the spirits there.

8. For me, being at Oak Flat is like being at the highest cathedral, like going to see the Pope at St. Peter's Basilica. The connection at Oak Flat is so powerful. You can feel it in the mountains, in the water, in the trees. It's like your whole body is just crying out that you're finally home. That's our place. We have it there at Oak Flat. You can't replace a place of that power and that connection with the Earth and with your soul. And it's not just me, but the people for generations before me. It is our religious home. You can't recreate what is there.

9. I've had the honor of being a godmother at a sunrise ceremony. During my coming of age, I had a massage ceremony, and life after that was full of stories, traditions, and instructions shared by my father, grandparents, aunties, uncles, and cousins on how to conduct myself as an Apache woman. When that day came to accept a stone to become a godmother, I was ready for the honor and responsibility. Being able to experience an entire sunrise dance ceremony, dancing and praying in honor of my goddaughter is among the highest honors I've received in my life. Being there with my goddaughter, lifting her up by dancing and prayer, becoming one with the spiritual connection of Oak Flat, of the Ga'an and the drums—the heart of the earth, that connection allowed me to push through the hardship of the ceremony, the spirit lifted us to use our inner strength to keep going and dance with pride.

10. I have two daughters. V.K. is thirteen, and M.K. is four. My older daughter V.K. had a massage ceremony at Oak Flat for her coming of age earlier this year.

11. Ahead of V.K.'s massage ceremony, we searched for a godmother for V.K. The right godmother is important because that woman serves as an example to the young girl undergoing the ceremony, and a godmother imparts strength to her goddaughter during the ceremony.

12. V.K.'s massage ceremony began before sunrise at Oak Flat, under a big oak tree. We thanked the land for being there and brought out food that we had prepared days before. We laid down four blankets and a buckskin. We then prayed and introduced V.K., our family, and V.K.'s godmother's family. V.K.'s godmother brought four more blankets. Then the godmother laid V.K. on the ground. V.K. raised her chin up—they are taught to do that throughout the ceremony to show their strength. Then, V.K.'s godmother began massaging V.K. in all four directions. Massaging is not just going through the motions; the focus is prayer. You're praying for the young girl, for her future, and for your strength to flow into her. You massage her mouth so that she can speak well, her hair and her face so that she can be beautiful, her ears so that she can hear the words of her ancestors and your prayers.

13. During the ceremony, the trees sang, and the winds came for V.K. The Earth and Usen were centering her—centering her at Oak Flat. When the massage was complete, V.K.'s godmother and godfather stood her back up, and the medicine man sang four songs that encapsulate the Sunrise Ceremony and we all danced. That's her moment when she emulates the White Painted Woman and when she is most connected with the Earth and with the Creator. We then gave gifts—acorn, water, salt, baking soda, and flour—to V.K.'s godmother to say thank you for accepting our daughter. I will never forget this day. It was the day that our girl was changed into an Apache woman under the big oak tree at Oak Flat.

14. I asked V.K. how she felt about the ceremony, and she told me that she finally “got it”—meaning, she understood what I have been talking about all these years. She understood the connection between Oak Flat and her identity as an Apache woman and the reason I cry when I am Oak Flat, being blessed to share this sacred place with my daughters and at the same time overwhelmed with the sadness that this may be destroyed.

15. I hope that in the future, M.K., my four-year-old, will also be able to have a massage ceremony at Oak Flat. M.K. is very interested in Apache history and traditions. For example, in the car, she often asks me to play songs from sunrise dances and music from crown dancers.

16. I fear that M.K. will not be able to have these experiences if Oak Flat is destroyed. The mine would permanently destroy Oak Flat and our connection to Usen and the Ga'an.

17. I have heard people say that we need the mine because it will provide forty years of copper. But would forty years of copper be enough to destroy St. Peter's Basilica? That is basically what this mine will do. The mine will destroy not just my connection, or my kids' connection, to Oak Flat; it will destroy my people's connection and my children's children's connection to Oak Flat. It would make it impossible to carry out our religious ceremonies or pass on our traditions to future generations.

18. This is what I mean when I say that I am a product of colonization. We have already forgotten so much Apache history and tradition. Even though my grandmother tried her best, she couldn't teach me everything about our religion and our people because she didn't learn everything herself. She was an orphan and was separated from her brother and sent to boarding school. Her brother was sent to boarding school in Phoenix and then San Francisco. He never returned to Oak Flat because he lost his identity and connection to his religion. He never got to live as an Apache. It was only after he died that my aunt brought his body home.

19. I feel like the same thing is happening with this mine at Oak Flat. If the mine is allowed to be built, it will be impossible to practice Apache religion as my ancestors did. We will lose our religion, our identity, and our sense of purpose. So much of what I know now about my Apache religion and history is because brave Apache women refused to forget their history and religion, preserved it, and passed it down to future generations. For things like the massage ceremonies and sunrise ceremonies, they said, "You will not take this away from our girls."

20. I am trying to do the same for my daughters and for future generations of Apache girls.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed on July 25, 2025.

  
Angela Kinsey

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

**GOUYEN BROWN LOPEZ, et al.,**

*Plaintiffs,*

v.

**UNITED STATES OF AMERICA, et al.,**

*Defendants.*

Civil Action No. 1:25-cv-02408-TJK

**DECLARATION OF  
MILES E. COLEMAN**

I, Miles E. Coleman, state and declare as follows:

1. My name is Miles E. Coleman. I am a partner at Nelson Mullins Riley & Scarborough LLP. I represent Plaintiffs Gouyen Brown Lopez, Sinetta Lopez, L.B., Nomie Brown, Angela Kinsey, V.K., and M.K. in the above-captioned matter. I have personal knowledge of everything testified to in this declaration.

2. Attached as Exhibit A is a true and correct copy of the National Register of Historic Places registration form for Oak Flat, *Chi'chil Bildagoteel* Historic District, Traditional Cultural Property, National Register of Historic Places Registration Form, NPS Form 10-900, National Park Service (Jan. 2016), available at <https://www.resolutionmineeis.us/sites/default/files/references/nez-2016.pdf> (redactions in original).

3. I declare under penalty of perjury that the foregoing is true and correct.

Executed this 25th day of July, 2025.

  
\_\_\_\_\_  
Miles E. Coleman

# Exhibit 1

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Chi'chil Bildagoteel Historic District, Traditional Cultural Property

Other names/site number: Oak Flat/ Apache Leap/ (b)(3) 25 USC

Name of related multiple property listing:

N/A

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: No street and number. Located east and northeast of Superior, Arizona.

City or town: State: Arizona County: Pinal

Not For Publication: [x]

Vicinity: [x]

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this [X] nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property [X] meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

[X] national [X] statewide [X] local

Applicable National Register Criteria:

[X] A [X] B [X] C [X] D

Signature box for David M. Johnson, Federal Preservation Officer, USDA Forest Service, Southwestern Region, dated December 2, 2015.

Signature box for commenting official, including fields for Signature of commenting official, Date, and Title.

Chí'chil Bildagoteel / Oak Flat  
Name of Property

Pinal County, Arizona  
County and State

**4. National Park Service Certification**

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register
- other (explain:) \_\_\_\_\_

\_\_\_\_\_  
Signature of the Keeper

\_\_\_\_\_  
Date of Action

**5. Classification**

**Ownership of Property**

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

**Category of Property**

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

United States Department of the Interior  
 National Park Service / National Register of Historic Places Registration Form  
 NPS Form 10-900 OMB No. 1024-0018

Chi'chil Bildagoteel / Oak Flat  
 Name of Property

Pinal County, Arizona  
 County and State

**Number of Resources within Property**

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
_____	_____	buildings
_____17_____	_____21_____	sites
_____	_____	structures
_____	_____	objects
_____	_____	Total

Number of contributing resources previously listed in the National Register   0  

**6. Function or Use**

**Historic Functions**

(Enter categories from instructions.)

- Religion \_\_\_\_\_ ceremonial site/ religious facility
- Domestic \_\_\_\_\_ Apache camp/ secondary structure (agave roasting pits)
- Defense \_\_\_\_\_ Apache battle site
- Agriculture/Subsistence \_\_\_\_\_ processing (acorn gathering)
- Landscape \_\_\_\_\_ natural feature (mountain, spring)

**Current Functions**

(Enter categories from instructions.)

- Religion \_\_\_\_\_ ceremonial site/ religious facility
- Agriculture/Subsistence \_\_\_\_\_ processing (acorn gathering)
- Landscape \_\_\_\_\_ natural feature (mountain, spring)

\_\_\_\_\_  
 \_\_\_\_\_

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**7. Description**

**Architectural Classification**

(Enter categories from instructions.)

N/A

**Materials:** (enter categories from instructions.)

Principal exterior materials of the property: N/A

**Narrative Description**

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

**Summary Paragraph**

The area known as Oak Flat on the Tonto National Forest and its surrounding landscape is of significant cultural importance to the Western Apache. It is known to the Western Apache as *Chi'chil Bildagoteel*, (CHI CHILL BIŁ DAH GO TELL), "a broad flat of Emory oak trees." *Chi'chil Bildagoteel* is a culturally and geographically defined landscape within the Tonto National Forest whose physical and spiritual integrity is vital to the continuation of fully effective Western Apache cultural practices, particularly to the San Carlos Apache Tribe. As defined here, *Chi'chil Bildagoteel* covers an [redacted] which can be delineated as a historic district. The boundaries [redacted].

(b)(3) 25 USC 32A, (b)(3) ARPA, (b)(3) NHPA



[redacted] Tribal members continue to visit and evoke *Chi'chil Bildagoteel* through prayer and song for a wide range of traditional needs, practices and ceremonies. The archaeological sites provide tangible evidence of the long standing importance of this area to the Apache and provide a continuous link from the past to present living Apache descendants. These [redacted] that the Apache utilized this area in the past for many of the same reasons as today including resource procurement, and, [redacted]

(b)(3) ARPA, (b)(3) NHPA

(b)(3) 25 USC 32A, (b)(3) ARPA

[redacted] *Chi'chil Bildagoteel* clearly meets the definition of a Traditional Cultural Property (TCP).

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**Narrative Description****Environmental Setting***Chí'chil Bildagoteel* (b)(3) 25 USC 32A, (b)(3) ARPA, (b)(3) NHPA

This area consists largely of volcanic tuff eroded into boulder fields and canyons with shallow basins forested with encinal (madrean oak woodlands). The terrain of this area varies greatly, ranging from a relatively flat grassy basin to the vertical jagged cliffs (b)(3) 25 USC . There are several large groves of Emory oak, including the area (b)(3) 25 USC 32A (b)(3) 25 USC 32A a rare desert riparian area that contains running water and perennial pools that are used by a variety of animals including songbirds, mountain lion, fox, bear and coaimundi. Vegetation includes scrub oak, manzanita, catclaw acacia, agave, mesquite, pinyon pine, and juniper.

**Ecological and Cultural Integrity**

Over the decades of administration by the Federal Government, *Chí'chil Bildagoteel* has been impacted by recreation facilities, road construction, and mining activities. These structures and developments range from a public campground to the US Highway 60 which (b)(3) 25 USC 32A (b)(3) 25 USC 32A While these modern elements contained in the *Chí'chil Bildagoteel* proposed site boundary have impacted the area, they have not irreparably compromised the integrity of this culturally important landscape. These roads are utilized by Apaches to access *Chí'chil Bildagoteel*, and the campground sites and tables are utilized by tribal members when they gather acorns and other foods, (b)(3) 25 USC 32A

*Chí'chil Bildagoteel* is a popular area for birding, hunting, hiking, camping, rock climbing, bouldering, canyoneering, picnicking, off-highway vehicle driving, and other recreational uses. Outside of the roads and the campground, *Chí'chil Bildagoteel* is largely undeveloped, and still maintains integrity of location, design, setting, materials, workmanship, feeling, and association. For a traditional cultural property, integrity primarily centers on integrity of relationship and condition. The grassy basin, oak groves, boulders and jagged cliffs appear much as they did centuries ago, and the integrity of condition is satisfied. The relationship between the location and the beliefs and practices of the Western Apache are still strong, and *Chí'chil Bildagoteel* (b)(3) 25 USC 32A to harvest plants, and to convey its significance for traditional practices. Apaches still come to *Chí'chil Bildagoteel* every year for collecting herbs and acorns. (b) (6), (b)(3) 25 USC 32A

The Apache archaeological sites are also largely intact, and retain integrity of location, design, setting, material, workmanship, feeling and association. (continued on page 14)

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### 8. Statement of Significance

#### Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important in prehistory or history.

#### Criteria Considerations

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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**Areas of Significance** – (for the District as a whole)

(Enter categories from instructions.)

X\_ Ethnic Heritage/Native American

X\_ Religion

X\_ Social History

X\_ Archaeology/Aboriginal Archaeology/Prehistoric Social History

\_\_\_\_\_  
\_\_\_\_\_

**Period of Significance**

\_1300 A.D. – Current \_

\_\_\_\_\_  
\_\_\_\_\_

**Significant Dates**

\_1300 A.D. – Current \_

\_\_\_\_\_  
\_\_\_\_\_

**Significant Person**

(Complete only if Criterion B is marked above.)

— (b)(3) 25 USC 32A \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Cultural Affiliation**

\_Apache \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Architect/Builder**

\_ N/A \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

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**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

Recognition of the role of *Chi'chil Bildagoteel* (Oak flat) plays in Western Apache culture in no way diminishes its importance to other cultures or ethnic groups. A recent report titled, "Ethnographic and Ethnohistoric Study of the Superior Area (Hopkins, Colwell, Ferguson & Hedquist 2015)" explains that Oak Flat is also important to other Indian Tribes. The purpose of the study was to identify traditional cultural properties of Native American tribes with traditional ties to the area surrounding Oak Flat Campground and the town of Superior, Arizona. The tribes who participated in this study were the San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, the Hopi Tribe, and the Pueblo of Zuni. (b)(3) 25 USC 32A in the study area, and tribal members continue to retain strong cultural ties with this land. While this nomination focuses on the Western Apache, other Native American tribes maintain the ability to document this area as traditionally and culturally important to them at a later date. In a series of tribal consultations conducted by Tonto National Forest; the White Mountain Apache Tribe, Tonto Apache Tribe, Yavapai-Apache Nation, Hopi Tribe, and the Pueblo of Zuni stated their official support for the nomination of *Chi'chil Bildagoteel* to the National Register of Historic places as an Apache TCP. The Gila River Indian Community expressed interest in creating an addendum to the nomination, at a future date, which would articulate their ancestral connection to this area.

As a holy place and ancestral homeland to the Western Apache Indians, *Chi'chil Bildagoteel* is eligible for the National Register of Historic Places under Criterion A; "associated with events that have made a significant contribution to the broad patterns of our history," because it is associated with traditional Apache oral history, is a venue for ongoing Apache participation in traditional social activities, and is associated with traditions rooted in the history of the

(b)(3) 25 USC 32A

of the Western Apache ancestral homeland and figures prominently in their history. *Chi'chil Bildagoteel* is eligible under Criterion B as a place "associated with the lives of persons significant in our past," because it (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

*Chi'chil Bildagoteel* is eligible under Criterion C (4) as a place "representative of a significant and distinguishable entity whose components may lack individual distinction" because of the oak groves present that figures importantly into traditional Apache subsistence patterns, and other important natural resources. And finally, *Chi'chil Bildagoteel* is eligible under Criterion D as a place "that has yielded, or may be likely to yield, information important in prehistory or history," because of opportunities available to record the oral histories of the Western Apache people, and the information contained in the Apache archaeological sites.

Historical documentation, Apache oral history, and the archaeological sites make it clear that *Chi'chil Bildagoteel* is an important feature of the Western Apache landscape as a sacred site, as a source of supernatural power, and as a staple in their traditional lifeway. *Chi'chil Bildagoteel* is

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actively and contemporarily used by the Western Apache for [REDACTED]

(b)(3) 25 USC 32A

*Chi'chil Bildagoteel* is eligible as a Traditional Cultural Property.**Narrative Statement of Significance**

Information supporting the eligibility of this landscape as a Traditional Cultural Property is in large part sourced from highly sensitive and confidential oral history interviews of Apache elders and is supported by the San Carlos Apache Tribe Elder's Cultural Advisory Council (ECAC), the Western Apache Ethnobotany Project, the Western Apache Place Names Project, and the Western Apache Natural World Project. Apaches [REDACTED]

(b)(3) 25 USC 32A

this practice in regard to the sharing of cultural information pertaining to *Chi'chil Bildagoteel*. In this matter, meticulous care and collaboration has been taken not to reveal information that knowledgeable tribal members regard as too sensitive or dangerous.

That being said, the cooperation and collaboration from Apache elders, traditional practitioners, and tribal officials for this nomination are of notable significance. As said by Apache Historian [REDACTED]

(b) (6)

[REDACTED] *Chi'chil Bildagoteel* is a place of profound religious, spiritual, and cultural importance. It is a traditional Apache camp and territory valued as a place that contains everything traditional Apaches need to thrive: food, medicine, shelter, prayer and healing sites, ceremony grounds, and protection.

**Research Methodology**

This National Register nomination started with archival research. The second phase of the project consisted of fieldwork and interviews with tribal members for the collection of oral histories and traditional knowledge. Interviews were conducted following culturally-appropriate parameters and techniques developed over 25 years of cultural preservation projects. The San Carlos Apache Tribe was the lead tribe representing the Western Apaches including the White Mountain Apache Tribe, the Tonto Apache Tribe, and the Yavapai Apache Tribe for this nomination. Seth Pilsk, Ethnobotanist for the Department of Forest Resources of the San Carlos Apache Tribe served as the tribal liaison on behalf of the tribe. Mr. Pilsk helped the Forest to identify Apache tribal elders and traditional cultural authorities knowledgeable about *Chi'chil Bildagoteel*. In a joint effort with Nanebah Nez, Archaeologist/Tribal Liaison from the Tonto National Forest, Mr. Pilsk helped to interview tribal members and write the content of this nomination.

Interviews were conducted based on the knowledge and preference of the participant. Tribal members were clearly informed as to the purpose of the interviews prior to participation. Field interviews at-the-site and in-office interviews were conducted. Work proceeded within the expectations set forth by Mr. Pilsk to ensure respect and compliance with tribal values to the extent feasible. Participants were invited to share information they deemed appropriate. Subsequent drafts of the nomination were submitted to Mr. Pilsk who reviewed them for accuracy and quality on behalf of the San Carlos Apache Tribe. (continued on page 24.)

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**9. Major Bibliographical References**

**Bibliography** (Cite the books, articles, and other sources used in preparing this form.)

Anyon, Roger, T.J. Ferguson, and Chip Colwell-Chanthaphonh  
2005. Natural Setting as Cultural Landscapes: The Power of Place and Tradition.  
Apache Moccasin – Newspaper Article (author not listed)  
August 4, 2010. Arizona Silver Belt. Globe, AZ.

(continued on page 36)

**Previous documentation on file (NPS):**

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # \_\_\_\_\_
- recorded by Historic American Engineering Record # \_\_\_\_\_
- recorded by Historic American Landscape Survey # \_\_\_\_\_

**Primary location of additional data:**

- State Historic Preservation Office
  - Other State agency
  - Federal agency
  - Local government
  - University
  - Other
- Name of repository: San Carlos Apache Tribal Offices \_\_\_\_\_

**Historic Resources Survey Number (if assigned):** \_\_\_\_\_

**10. Geographical Data**

**Acreage of Property** (b)(3) 25  
USC 32A \_\_\_\_\_

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Use either the UTM system or latitude/longitude coordinates

**Latitude/Longitude Coordinates (decimal degrees)**

Datum if other than WGS84: \_\_\_\_\_

(enter coordinates to 6 decimal places)

1. (b)(3) 25 USC 32A, (b)(3) ARPA, (b)(3) NHPA
2. [Redacted]
3. [Redacted]
4. [Redacted]

**Or**

**UTM References**

Datum (indicated on USGS map):

NAD 1927 or  NAD 1983

- |          |           |           |
|----------|-----------|-----------|
| 1. Zone: | Easting:  | Northing: |
| 2. Zone: | Easting:  | Northing: |
| 3. Zone: | Easting:  | Northing: |
| 4. Zone: | Easting : | Northing: |

**Verbal Boundary Description (Describe the boundaries of the property.)**

Chi'chil Bildagoteel (b)(3) 25 USC 32A, (b)(3) ARPA, (b)(3) NHPA  
[Redacted]

**Boundary Justification (Explain why the boundaries were selected.)**

Delineating a boundary to encompass the entirety of *Chi'chil Bildagoteel* – or other traditional places – is not consistent with Apache cultural sensibilities. Landscapes are not viewed as pieces of a puzzle sewn together with separate and segregated attributes. *Chi'chil Bildagoteel* is viewed as one large body, with each of the unique attributes contributing elements to make a whole. Elders could explain the elements as similar to bones, and veins and appendages. All of these elements are necessary to make a whole body, and for that body to be healthy.

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As a boundary line is necessary for the purposes of this nomination, the *Chi'chil Bildagoteel* boundary line is based on direct guidance from Apache elders and professional judgement. Because of the complexities in assigning boundaries to a traditional cultural property and the overall size of the area, a combination of elements was used to define the "edges" of *Chi'chil Bildagoteel*. These consist of elevation contour lines, topographic features, and legally recorded boundary lines. All of these elements are easily recognized on USGS topographic maps and serve as a tangible way to accurately describe the boundary for the purposes of this nomination. (b)(3) 25 USC 32A



Town of Superior, or private property. No buffer areas (areas considered not contributing) were included.

The area within the boundaries as defined above includes the (b)(3) 25 USC 32A



areas is individually important for unique reasons, but collectively this place is known as *Chi'chil Bildagoteel*, and is viewed as a large contiguous site. While it is recognized that cultural significance of an area does not stop at artificial boundaries, the *Chi'chil Bildagoteel* boundary, as is, is a cohesive entity sufficient in scale and association as to encompass those resources which were conveyed to the Forest Service as significant, and where use continues today. This defined area, consisting only of National Forest Service Administrated Land, is the result of several sessions of consultations between the Tonto National Forest and the San Carlos Tribal Historic Preservation Office.

**11. Form Prepared By**

name/title: Nanebah Nez \_\_\_\_\_  
 organization: Tonto National Forest, US Forest Service, USDA \_\_\_\_\_  
 street & number: 2324 E McDowell Road \_\_\_\_\_  
 city or town: Phoenix \_\_\_\_\_ state: \_Arizona\_ zip code: \_85006\_  
 e-mail: [nnez@fs.fed.us](mailto:nnez@fs.fed.us) \_\_\_\_\_  
 telephone: 602-225-5232 \_\_\_\_\_  
 date: 9/22/2014 \_\_\_\_\_

**Additional Documentation**

Submit the following items with the completed form:

- **Maps:** A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

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### **Photographs**

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

### **Photo Log**

See page 50 for Photo Log

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.). Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

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**Narrative Description - (continued from section 7, page 5)****Traditional Western Apache Life and Presence**

The Western Apache refer to themselves as *Nnee or Ndee*, “the People.” Prior to their late nineteenth century placement on reservations, the traditional nine Western Apache bands lived in distinct territories (see Map B). The pre-reservation Western Apache moved seasonally through the landscape according to the rhythm of maturing wild food crops, while maintaining agricultural fields at strategic locations (see Map C for migration patterns). Each Western Apache band practiced a subsistence strategy based on gathering wild plant foods, agriculture, and hunting. Wild plant foods collected by Apachean groups in upland areas such as *Chi'chil Bildagoteel* included acorns from the Emory oak (*Quercus emoryi*), juniper berries, sumac berries, and the hearts of agaves. Wild meat sources included large game, wild fowl, and rodents (Buskirk 1986, Goodwin 1942). Apaches often returned to their favorite harvesting sites, and many Apache clans are named for agricultural and seasonal camp sites.

*Chi'chil Bildagoteel* has been and remains one of these favored harvesting sites. Well-fortified and abundant with many wild foods – including Emory oak acorns – Apaches have been coming to *Chi'chil Bildagoteel* for generations. Returning to ancestral sites such as this to live, gather food, and conduct ceremonies strengthens individual, family, and clan bonds to the land and to ancestors. This in turn strengthens and maintains Apache identity and needed bonds to the specific natural elements of *Chi'chil Bildagoteel*. The land and the elements found within, and the identity associated with family, clan, and place, in part form the basis of the traditional Apache support system that directly contributes to cultural vitality and good health.

**Archaeological Summary**

*Chi'chil Bildagoteel* and the surrounding area has been persistently utilized and occupied for the past 1,500 years, from the pre-Classic Hohokam to the present, including significant use by the Western Apache. Thirty-eight known prehistoric and historic archaeological sites are located within the *Chi'chil Bildagoteel* area (Lindeman and Whitney, 2005: 22), although the entire area has not yet been surveyed. Seventeen archaeological sites having components attributed to the Apache people were documented during several surveys (b)(3) 25 USC 32A (Buckles 2009; Buckles and Granger 2009; Lindeman and Whitney 2005). These include

(b)(3) ARPA, (b)(3) 25 USC 32A

This large number of Apache sites located in one small area demonstrates that this area was important to the Apache. Western Apache archaeology is well documented as being difficult to detect, and in many cases it is necessary to seek tribal assistance for verification (Eiselt 2012; Laluk 2006; Seymour 2012). The focus and structure of traditional Apache life was governed by practices designed to leave as little impact upon the natural world as possible. Prehistorically, the Western Apache depended largely on perishable materials and purposefully interfered very little with landscapes in which they lived. Given their highly mobile lifestyle pottery was more of a rarity, skins and gourds often serving as more durable and portable devices (Krall and Randall 2009). Apache consultant (b) (6) says;

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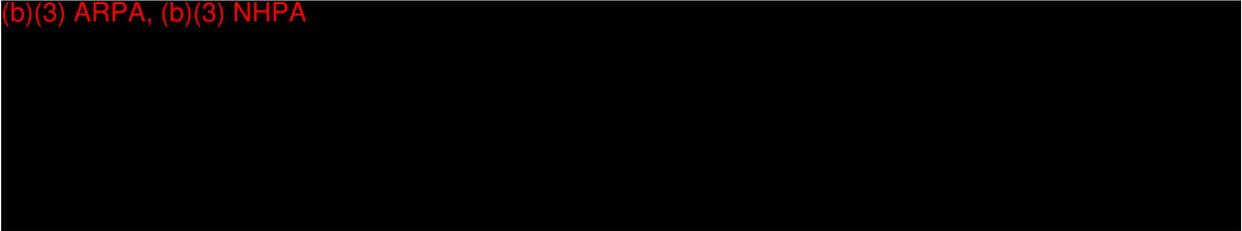
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“We were the first leave-no-trace campers. We didn't move stuff around if we didn't have to. We left things alone and took pride in leaving a place the way we found it.”

Apache archaeological sites at *Chi'chil Bildagoteel* were identified by diagnostic features and artifacts. Apache features can consist of cleared areas, gowa rock rings, and rock piles. The most visible Western Apache features are large mounds of charcoal and fire-cracked rock (Ferg 2003). Large communal roasting pits used for roasting agave are distinctive of Apache camps. Rocks were heated with a wood fire until searing hot. When all the wood was burned to ashes, agave cores were placed on top of the hot rocks and covered with grass, tree limbs, and dirt until no steam escaped. When the agave was done the pit was opened and the contents distributed back to the gatherers. According to Apache Historian (b) (6) “owners knew which bundles to claim according to the knots used to tie them up. Each person tied their bundles in a different way.” This same process was used to prepare a number of other food products including corn, certain seeds, and certain meats.

(b)(3) ARPA, (b)(3) NHPA



Diagnostic Apache artifacts include Apache ceramics, flaked stone tools, Apache style projectile points, and historic artifacts often reworked in an Apache style to suit Apache purposes. Apache plainware dates to approximately AD 1500-1875, and is found in North and East Central Arizona. Apache plainware is a relatively thin, hard rough-surfaced paddle-and-anvil-made pottery. It is chocolate brown to red-brown to ashy grey to black in color, fine sand tempered, and characterized by rough surface finishes produced by scoring or wiping (although occasionally is left smooth without scoring). Exterior surfaces sometimes retain traces or intact patches of pinyon pitch encrustation (applied to reduce porosity for holding water). Temper variety is mostly local sands, some with mica (Wood 1987).

The archaeological sites at *Chi'chil Bildagoteel* have not been significantly impacted by vandalism or any of the modest development in the area. They have not been isolated from their setting, or affected by elements out of character with their surroundings. These sites are in very good condition and present the opportunity to provide important information to better understand Western Apache material culture and to help anthropologists more effectively identify and interpret Apache occupations and use of the area. The sites provide strong evidence of the significance of this area to the Apache and demonstrate continuous use from the past through present living Apache descendants. The sites support information contained in oral histories that establish this area as the Western Apache homeland, and that *Chi'chil Bildagoteel* has played a long-term role in defining Western Apache cultural. The sites also corroborate the ethnographic research conducted in the 1930s by Edward Gifford and Grenville Goodwin who identified this area as ancestral homelands to the Pinal Band, and Aravaipa Band of the Western Apache. Another layer of evidence was provided by the intensive Ethnographic and Ethnohistoric Report

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conducted by Anthropological Research LLC. in 2015. Results of this report demonstrated multigenerational use of Oakflat by Apache traditionalists for prayer, ceremony, and acorn gathering. As demonstrated by Basso, *Chich'il Bildagoteel* is also important to the Apaches as a place where warriors would form with Yavapai allies before journeying into Mexico and the Pima and Maricopa territories (Basso 1971:73–91). The sites also corroborate the ethnographic research conducted in the 1930s by Edward Gifford and Grenville Goodwin who identified this area as ancestral homelands to the Pinal Band, and Aravaipa Band of the Western Apache. Recent research by Hopkins, Colwell, Ferguson, & Hedquist, has also revealed a strong and multigenerational connection to this area.

Archaeological sites listed below as contributing properties are those determined to demonstrate Apache occupation and use of the area. Archaeological sites that pre-date Apache presence are identified as non-contributing properties. The following inventory of archaeological sites should not be viewed as complete. Not all areas have been surveyed, and not all archaeological sites, cultural values, and traditional cultural properties on this landscape have been identified and recorded. Due to the complexity of this landscape it is possible and common to find new cultural sites with each new survey of the landscape. Apache consultants acknowledged that they knew of archaeological sites unrecorded by non-Apache researchers. Archaeological sites represent just one layer of evidence, as oral history, cultural memory, and active social customs represent other layers of evidence. The contributing resources listed in the following inventory are limited to cultural resources that were specifically discussed to compose this nomination. Other resources may have been deemed by tribal consultants to be too culturally sensitive to discuss in this nomination.

Contributing archaeological sites:	Non-Contributing archaeological sites:
(b)(3) ARPA, (b)(3) NHPA	

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19.			
20.			
21.			

**Apache Archaeological Site Descriptions/Contributing Properties**

Site Number	Period	Components	Artifacts	Eligibility for the National Register
(b)(3) ARPA, (b)(3) NHPA	Multi-component Protohistoric, Historic	(b)(3) ARPA, (b)(3) NHPA	(b)(3) ARPA, (b)(3) NHPA	Eligible under Criterion A, Event 3, Criterion D, Theme 6
(b)(3) ARPA, (b)(3) NHPA	Multi-component Protohistoric, Pre-Classic Hohokam	(b)(3) ARPA, (b)(3) NHPA		Eligible under Criterion D, Themes 1-3.
(b)(3) ARPA, (b)(3) NHPA	Multi-component Protohistoric, Archaic, Classic Hohokam	(b)(3) ARPA, (b)(3) NHPA		Eligible under Criterion A, event 1, Criterion D, Themes 1-5

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		(b)(3) NHPA	
(b)(3) ARPA	Multi-component Protohistoric, Classic Hohokam	(b)(3) ARPA	Eligible under Criterion A, event 1, Criterion D, themes 1-5.
(b)(3) NHPA	Historic	(b)(3) NHPA	Eligible Criterion A, event 1, Criterion D, Themes 1-5
(b)(3) ARPA, (b)(3) NHPA	Multi-component Protohistoric, Historic (Anglo), Pre-Classic, Classic	(b)(3) ARPA, (b)(3) NHPA	Eligible under Criterion D, themes 1-3
(b)(3) ARPA, (b)(3) NHPA	Multi-component Protohistoric, Historic, Pre-Classic, Classic	(b)(3) ARPA, (b)(3) NHPA	Eligible under Criterion A, events 1 and 3, and Criterion D, themes 1-6
(b)(3) ARPA, (b)(3) NHPA	Multi-component Protohistoric, Pre-Classic		Eligible under Criterion A, event 1, and Criterion D, themes 1-5
(b)(3) ARPA	Multi-component Protohistoric, Historic		Eligible under Criterion A, event 1, Criterion D, Themes 1-5

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		(b)(3) NHPA		
(b)(3) ARPA	Protohistoric	(b)(3) ARPA		Eligible under Criterion A, event 1, Criterion D, Themes 1-5
(b)(3) ARPA	Protohistoric	(b)(3) ARPA		Eligible under Criterion A, event 1, Criterion D, Themes 1-5
(b)(3) ARPA	Multi-component Protohistoric, Prehistoric	(b)(3) ARPA		Eligible under Criterion A, event 1, Criterion D, Themes 1-5
(b)(3) ARPA	Multi-component Protohistoric, Pre-Classic, Classic	(b)(3) ARPA		Eligible under Criterion A, event 1, Criterion D, Themes 1-5.
(b)(3) ARPA	Protohistoric	(b)(3) ARPA	None	Eligible under Criterion D, Theme 3
(b)(3) ARPA	Protohistoric	(b)(3) ARPA	None	Eligible under Criterion A, event 1, Criterion D, Themes 1-5
(b)(3) ARPA	Multi-component Protohistoric, Classic	(b)(3) ARPA		Eligible under Criterion A, events 1 and 3, and Criterion

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				D, themes 1-6
(b)(3) ARPA	Protohistoric	(b)(3) ARPA		Eligible under Criterion A, event 1, Criterion D, Themes 1-5

**Non-Apache Site Descriptions/Non-Contributing Properties**

Site Number	Period	Components	Artifacts	Eligibility for the National Register
(b)(3) ARPA, (b)(3) NHPA				
	Multi-component Historic, Prehistoric	(b)(3) ARPA, (b)(3) NHPA		N/A
(b)(3) ARPA	Multi-component Pre-Classic, Classic	(b)(3) ARPA		N/A
(b)(3) ARPA	Classic			N/A
(b)(3) NHPA	Historic	(b)(3) NHPA	N/A	N/A
	Historic		N/A	N/A
	Historic		N/A	N/A
(b)(3) ARPA	Prehistoric	(b)(3) ARPA		N/A
(b)(3) ARPA	Pre-Classic			N/A
(b)(3) NHPA	Historic	(b)(3) NHPA		N/A

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	scatter			
(b)(3) ARPA	Pre-Classic	(b)(3) ARPA		N/A
	Prehistoric			N/A
	Multi-component Archaic			N/A
(b)(3) ARPA	Prehistoric			N/A
(b)(3) NHPA	Historic	(b)(3) NHPA	N/A	N/A
	Historic		(b)(3) NHPA	N/A
	Historic		N/A	N/A
	Historic		N/A	N/A
(b)(3) ARPA	Prehistoric	(b)(3) ARPA		N/A

Terms:

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Prehistoric: Broadly refers to a time before written history. This term is also used when diagnostic artifacts are not available, and a more specific time scale is difficult to determine.

Archaic: 8000 BC to AD 700. The Archaic way of life was one of hunting and gathering, similar to the way of life practiced by the Yavapai and Apache as late as AD 1700.

Protohistoric: The term Protohistoric broadly refers to a time before written Native American history. In this location it indicates Apache use between the dates of AD 1450 to AD 1850.

Pre-Classic: Indicates Hohokam use between AD 450 to AD 1100.

Classic: Indicates Hohokam use between AD 1100 to AD 1450.

### Non-Contributing (non-archaeological) Resources

Over the decades of administration by the Federal Government, *Chi'chil Bildagoteel* has been impacted by recreation facilities, road construction, and mining activities. These structures and developments range from a public campground to the US Highway 60 (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

While these modern elements contained in the *Chi'chil Bildagoteel* proposed site boundary have impacted the area, they have not irreparably compromised the integrity of this culturally important landscape. These roads are utilized by Apaches to access *Chi'chil Bildagoteel*, and the campground sites and tables are utilized by tribal members when they gather acorns and other foods, and host ceremonial activities in the area. Most of the area remains undisturbed.

*Chi'chil Bildagoteel* is a popular area for birding, hunting, hiking, camping, rock climbing, bouldering, canyoneering, picnicking, off-highway vehicle driving, and other recreational uses. Outside of the roads and the campground, *Chi'chil Bildagoteel* is largely undeveloped, and still maintains integrity of location, design, setting, materials, workmanship, feeling, and association. For a traditional cultural property, integrity primarily centers on integrity of relationship and condition. The grassy basin, oak groves, boulders and jagged cliffs appear much as they did centuries ago, and the integrity of condition is satisfied. The relationship between the location and the beliefs and practices of the Western Apache is still strong, and *Chi'chil Bildagoteel* serves as a haven for ceremonies (see photos 8, 9, 10), for plant harvesting, and to convey its significance for traditional practices. Apaches still come to *Chi'chil Bildagoteel* every year for collecting herbs and acorns. (b) (6), (b)(3) 25 USC 32A

*Chi'chil Bildagoteel*. The Apache archaeological sites are largely intact, and retain integrity of location, design, setting, material, workmanship, feeling and association.

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**Non-Contributing (non-archaeological) Resources Inventory**

Oak Flat Campground Developments – 16 picnic tables, 14 grills, vault toilets
Forest Roads
US Hwy 60 segment (Superior to Globe)
Hiking trails
OHV trails
Mining implements (drills and staging areas)

**Contributing Resources – non-archaeological (see map H)**

Chi'chil Bildagoteel (entire continuous site)
(b)(3) 25 USC 32A
(b)(3) 25 USC 32A
Natural features and landscape (valley, mountain, spring, etc.) (entire continuous site)

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**Narrative Statement of Significance – continued from section 8, page 9**

**Research Methodology continued**

While this nomination focuses on the Western Apache, maintain the ability to document this area as traditionally and culturally important to them at a later date. In a series of tribal consultations conducted by Tonto National Forest; the White Mountain Apache Tribe, Tonto Apache Tribe, Yavapai-Apache Nation, Hopi Tribe, and the Pueblo of Zuni stated their official support for the nomination of *Chi'chil Bildagoteel* to the National Register of Historic places as an Apache TCP. The Gila River Indian Community expressed interest in creating an addendum to the nomination, at a future date, which would articulate their ancestral connection to this area.

**Ancestral Homeland/Ethnic Heritage – Criterion (A)**

*Chi'chil Bildagoteel* is eligible for the National Register of Historic Places under Criterion A; as it is “associated with events that have made a significant contribution to the broad patterns of our history,” because it is associated with traditional Apache oral history and (b)(3) 25 USC 32A

(b)(3) 25 USC 32A *Chi'chil Bildagoteel* is a place  
Chi'chil

*Bildagoteel* (b)(3) 25 USC 32A  
(b)(3) 25 USC 32A

*Chi'chil Bildagoteel* is also eligible for the National Register under Criterion A; because it is associated with traditions rooted in the history (b)(3) 25 USC 32A

(b)(3) 25 USC 32A  
– the Aravaipa Bands of the Western Apache Tribes. This is part of the Western Apache ancestral homeland and figures prominently in their history.

In 1932, this region was mapped by Edward Gifford as the ancestral homeland (b)(3) 25 USC 32A

(b)(3) 25 USC 32A Pinal Band,” and closely  
– the Aravaipa Band. In

a 2014 interview (b) (6)  
Performing his research in the 1930s, Grenville Goodwin worked extensively with Apache elders becoming knowledgeable of pre-reservation life patterns. His work, “The Social Organization of the Western Apache” identifies the Pinal Mountains as the territory of the Pinal Band of the San Carlos group (Goodwin 1942:2).

According to non-Apache researchers, Athabaskan-speaking groups began arriving in the region of the southern Colorado Plateau and the mountainous region below the Mogollon Rim between A.D. 1300-1500 or earlier (Seymour 2008). In 1583, a Spanish entrada led by Espejo encountered either Apache or Yavapai people in the Verde Valley. By the late 1600s several

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Spanish reports document that there were “Apaches” living north of the Gila River (Forbes 1966). These accounts speak of “Pinalaños” (the Pinal Band of Apache) and “Apache war parties” raiding local settlers (Spicer 1962). Apache presence was seen as a nuisance to Spanish northward expansion, a view that led to frequent extermination attacks.

With the Treaty of Guadalupe Hidalgo in 1848, the United States came to control most of the Western Apache’s traditional homeland. The following year, Anglo settlers began streaming into the Southwest. Reports of silver, gold, timber, and open rangeland fueled colonial migration. Indians living in fertile, mineral-rich, or otherwise desirable lands were viewed as dangerous obstacles to the expansion of the U.S. economy. Under the premise of protection, the U.S. government removed the Western Apache and Southeastern Yavapai to relocate the tribes to “safe-areas.”

The “Peace Policy,” developed by the U.S. Army in 1871 called for the collection of all Apaches onto the Fort Apache, Camp Verde, San Carlos, and Camp Grant Indian reservations. In these confinements they were to be “protected” and encouraged to make a living by farming and raising livestock (Basso 1971). By 1875, this campaign was deemed a failure as disease and poverty struck the populations concentrated in these small areas. Upon release from San Carlos, many Apache families made the choice to leave, braving the newly hostile territory within their own homelands that had become unwelcoming to Indian presence. Many families passed through *Chi'chil Bildagoteel* seeking rest and refuge on their journeys home. Apache elder Linda Evans says;

“A lot of *Dilzhe'é* used to live here. When they were released from San Carlos they came through here and a lot of them stayed. If they passed through they would come here (*Chi'chil Bildagoteel*) and pray. You can still see the horse trails and wagon trails they used.”

In 1934, the Indian Reorganization Act formally divided the Western Apaches among several small reservations in Arizona (Buskirk, 1986), and established Federally-imposed political structures on the tribes. The Western Apaches are currently divided administratively into the White Mountain Apache Tribe, the San Carlos Apache Tribe, the Tonto Apache Tribe, and the Yavapai-Apache Nation. These reservations represent less than a third of their former land, a large portion of which is now managed by the Tonto National Forest.

### **Mountain Spirits/Western Apache Religion – Criterion (B)**

Western Apache culture includes supernatural or spiritual beings that have a role in influencing individuals’ lives. One important class of beings is the *Gáán* who are believed to live within certain mountains. *Gáán*, spelled a variety of ways including gaahn, gan, kan, and gahn, are also known as mountain spirits and crown dancers. Goodwin (1939: xxiii) describes them as:

... a class of supernaturals living inside the mountains and certain caves and who may be equated with the Pueblo kachinas. They were a people living on this earth long ago, but went away never to return.

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(b)(3) 25 USC 32A  
[Redacted]

religious paradigm.

(b)(3) 25 USC 32A  
[Redacted]

A portion of a *Gáán* story is included here that tells of the Thunder People and the Apaches who became bad (Haley 1981:47):

*Yusn* [the Creator] took pity on them [the Apache people]. He told the *Gáán* spirits to come out from under the mountains and teach them ceremonies to get well. The *Gááns* were wearing beautiful clothes and had wands and headdresses that were full of power. The Apaches listened to everything the *Gááns* taught them. When the *Gááns* were ready to go back to the mountain, they got together and the leader said, "Listen. These people are doing all right now, but when we're gone they will do like before. We have to leave drawings of ourselves on the cliff face. When they get tired of being wicked they will remember us and do like we taught them." The other *Gááns* said, "That's right." Each one drew his picture on the cliff face, and then the *Gáán* spirits went back into the mountain. It happened just like the *Gáán* leader said. The Apaches went back to doing no good, until they agreed they had to change. The only way to get along was to do right. They studied those pictures on the cliff. Some men dressed up and did ceremonies like the *Gááns* did. They found out that when they did this way, they had power just like the *Gááns*.

The *Gáán* continue to serve an important role (b)(3) 25 USC 32A  
[Redacted]

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**Apache Natural Resources/Social History – Criterion (C), subsistence**

In an oral history interview with an Apache elder, *Chi'chil Bildagoteel* was said to exist in the

(b)(3) 25 USC 32A  
[Redacted]

The concept of supernatural or spiritual power among the Western Apache is termed *diyih*. Everything that exists has life and all life has *diyih*. *Diyih* must be respected in Apache beliefs so that it can be put to good use by individuals.

Basso (1969:30) defines this power accordingly:

“The term *diyih* refers to one or all of a set of abstract and invisible forces which are said to derive from certain classes of animals, plants, minerals, meteorological phenomena, and mythological figures within the Western Apache universe. Any of the various powers may be acquired by man and, if properly handled, used for a variety of purposes. Each thing in the world -- the animals, the plants, the sky and stars and lightning -- has a power behind it that makes it do what it does. What you can see is only a little of the whole thing. The power is in the spirit part. Some people can learn to reach the spirit part of something, and they become shaman. There is power in everything!”

Major sources of *diyih* include fire, lightning, thunder, water, wind, deer, bear, horse, mountain lion, bats, eagles, snakes, and lizards. It is not these natural features and occurrences or animals that are sacred; it is the power they contain. Certain places, such as mountains, may be associated with a number of forms of *diyih* such as those where mythical events occur or supernatural beings live, the location of ceremonies, or where plants are gathered (Spoerl 2001). While some of these resources can be gathered and used in other areas, (b)(3) 25 USC 32A

(b)(3) 25 USC 32A [Redacted]

Apache elders say;

(b)(3) 25 USC 32A  
[Redacted]

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Natural resources are treated with the utmost respect and they are collected and used with ceremony and profound gratitude. For Apaches, (b)(3) 25 USC 32A

they have, and the more able they are to contribute to the health and well-being of Apache people and all others – Apache and non-Apache, human and non-human alike.

*Chí'chil Bildagoteel* is particularly rich in traditional Apache resources, providing everything necessary for Apache survival. This includes not only access (b)(3) 25 USC 32A, but subsistence in the form of plants and animals for consumption, (b)(3) 25 USC 32A. There are hundreds of traditional Apache plants and other living things in the *Chí'chil Bildagoteel* area that are crucial to Apache religion and culture. Some of these are plants are common (such as *obétsjn* – pinyon pine, *nos* – pointleaf manzanita, and *tsé'izhi* – Louisiana wormwood) and some are rare holy medicines known only to gifted Apache herbalists. This landscape is rich in birds (such as *ikaz dló'* – western tanager, *jagéshniihé* – Say's phoebe, and *nalstólkizh* – zone-tailed hawk), reptiles (such as *tú tl'iish* – garter snakes, *lenenla'i* – Gila monster, and *na'ishó' dotl'ish* – collared lizard), and minerals (such as *chí* – hematite, *tsé deschí* – magnetite, and *dotl'izhi* – turquoise), (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

Others with these connections might find acorns and foods from this place to be more nutritious, tasty, and meaningful – tying them directly to their land.

The flat valley, which currently includes Oak Flat campground, and some of the surrounding canyon bottoms are traditional camping areas used for acorn gathering (b)(3) 25 USC 32A. According to interview participants, families have used this grove for generations and continue to this day to annually gather acorns here (Hopkins, Colwell, Ferguson, & Hedquist 2015:54). The *Chí'chil* (Emory oak acorns), which grow at this location are prized by the Apache for their sweet taste. The reliable harvest draws families back every year. Mid-summer it is a common site to see Apache families filling baskets and buckets of acorns. Acorn stews are served with regularity when the harvest is good. Emory oak acorns were the second most important pre-reservation Western Apache food and the single most important traditional food today. *Chí'chil* (acorns) are vital to almost every Apache social and ceremonial function.

### **Holy Sites/Social History – Criterion (A), ceremonies; and Criterion (D), oral histories**

Oral history concerning ceremonial use is difficult to separate between the National Register Criteria, and really pertains to both ceremonial use and social history under Criterion A and to

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information potential on the past and present use of the area under Criterion D. This section therefore augments the discussions provided for both Criterion A, above, and D presented below.

(b)(3) 25 USC 32A [REDACTED] has been passed down for many generations. Apaches believe [REDACTED] and that one should refer to them by their proper names in order to show respect to the place itself and to the ancestors or Holy People who named it. [REDACTED] are far more than just titles used to reference points on a map. They are words saturated with all the events and teachings that attach themselves to a place over time. (b)(3) 25 USC 32A [REDACTED]

[REDACTED] is associated with specific historical events. These historical events are usually associated with traditional teachings and taboos. By “speaking the names” one quotes the ancestors and invokes the place’s teaching.

In an interview conducted by anthropologist Keith Basso, an Apache consultant explained;

“Wisdom sits in places. It's like water that never dries up. You need to drink water to stay alive, don't you? Well, you also need to drink from places. You must remember everything about them. You must learn their names. You must remember what happened at them long ago. You must think about it and keep on thinking about it. Then your mind will become smoother and smoother. Then you will see danger before it happens. You will walk a long way and live a long time. You will be wise. People will respect you (Basso 1996:70).”

“It’s good to talk names, this is what we know about our stories, they go to work on your mind... all of a sudden it hits you! It’s like an arrow... stories make you want to replace yourself again (Basso 1996:58-59).”

In delicate social situations, place-names may be mentioned in order to draw attention to one’s undesirable actions without directly chastising or insulting them (Basso 1996, Low 2005). This social custom protects social relationships while allowing people to council one another in a way that avoids confrontation and embarrassment. For example, a place might refer to a place where a girl was caught by bad men after she was warned of that danger by her parents. The moral lesson attached might be “mind your parents.” In a delicate social situation, where a child was not minding its parents, the family might mention this place name to the child. (b)(3) 25 USC 32A [REDACTED] To the child, this is the same as a direct chastisement, for both methods include the message to “mind your parents.” This mannerism of ‘place-naming’ is viewed by the Apache as non-confrontational. It is a sensitive, compassionate, powerful, and uniquely Apache way to dialogue which takes into the highest regard each individual’s intelligence and their right to make their own decisions.

Speaking the names is also a leisurely and soothing activity practiced by tribal members.

(b)(3) 25 USC 32A [REDACTED]

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(b)(3) 25 USC 32A

Place naming in itself is a cultural activity which invokes cultural practices, community history, and cultural continuance. Place names are important to the continuation of Apache culture. They are venues for the fixation of oral history on the landscape. Place names animate historical events, traditional teachings, and social customs.

To many Apache, *Chi'chil Bildagoteel* is a geocultural landscape of place names and holy sites, some of which are considered too powerful, too personal, and too dangerous to share, describe, or map. Elders did, however, give permission to mention two sites for the purpose of this nomination; (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

(b)(3) 25 USC 32A

individually important for unique reasons. These

(b)(3) 25 USC 32A

Collectively, the sum of all these places is known as *Chi'chil Bildagoteel*, and is viewed as a large contiguous site. The idea of separating these places from the larger body and considering them independent resources is not consistent with Apache sensibilities. Landscapes are not viewed as pieces of a puzzle sewn together with separate and segregated attributes. *Chi'chil Bildagoteel* is viewed as one large body, with each of the unique attributes contributing elements to make a whole. Elders could explain the elements as similar to bones, and veins and appendages. All of these elements are necessary to make a whole body, and for that body to be healthy.

(b)(3) ARPA

Each of these figures has special meaning to Apache *Diyin* who have frequented and utilized this place for generations (Hopkins, Colwell, Ferguson, & Hedquist 2015:90). (b)(3) ARPA

(b)(3) 25 USC 32A

(b) (6), (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

An Apache Elder (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

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(b)(3) 25 USC 32A [Redacted]

(b)(3) 25 USC 32A [Redacted] are extremely powerful to Apaches, (b)(3) 25 USC 32A [Redacted]

[Redacted] a profound and central role in the most ancient of Apache ceremonial songs and creation stories. *Diyin* have frequented this place for generations and they consider this place alive (Hopkins, Colwell, Ferguson, & Hedquist 2015:94).

Yavapai-Apache elder (b)(3) 25 USC 32A [Redacted]

(b)(3) 25 USC 32A [Redacted]

An Apache elder (b)(3) 25 USC 32A [Redacted]

(b)(3) 25 USC 32A [Redacted]

Apache elder (b) (6), (b)(3) 25 USC 32A [Redacted]

(b)(3) 25 USC 32A [Redacted]

All of these important attributes, that *Chi'chil Bildagoteel* is an ancestral home place, that it is home to (b)(3) 25 USC 32A [Redacted]

why Apache families choose (b)(3) 25 USC 32A [Redacted]

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(b)(3) 25 USC 32A

For the community, the Sunrise Ceremony unifies family and clan, strengthens kin obligation, establishes reciprocal obligation between unrelated persons, relieves anxieties, and encourages moral behavior (Basso 1996). Modern ceremonies have become extravagant events featuring feasting, dancing, and singing. A significant function of these ceremonies is that they bring together peoples from all four Western Apache reservations. They serve as venues for family reunions, and primarily as conduits for cultural continuity. (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

*Chi'chil Bildagoteel* as a whole, and the individual locations such as *Tséya Gogeschin*, and *Tú Nahikaadi* are places where Apache ancestors went to pray, to seek solace, and spiritually engage with the landscape. *Chi'chil Bildagoteel*, *Tséya Gogeschin*, and *Tú Nahikaadi*, continue to offer the opportunity for individuals to pray in the same places their ancestors prayed and to benefit from the blessings left behind by their ancestors. The Apache believe that in special places like *Chi'chil Bildagoteel*, blessings can linger, long after the person who said them leaves. These blessings are part of what makes this place special. Apache elder explained, "This place is blessed, it was blessed a long, long time ago, by the old ones." This relationship facilitates multigenerational cultural continuity which maintains Apache identity.

#### **Archaeology/Aboriginal Archaeology/Prehistoric Social History – Criterion (D)**

The archaeological sites at *Chi'chil Bildagoteel* provide a tangible and continuous link from the past to present living Apache descendants. The large number of Apache sites in one small area confirms the long-standing importance of the area to the Western Apache. These sites present the opportunity to better understand Apache material culture, trade, subsistence activities and overall use of the area. These archaeological sites confirm that the Apache utilized the area in the past for many of the same reasons as today including resource procurement, and, as suggested by the rock art, ceremonial use as well. The archaeological sites also corroborate the ethnographic research conducted in the 1930s that identified this area as ancestral homelands to the Western Apache. Multi-generational use is also confirmed by the recently completed Ethnographic and Ethnohistoric Study of the Superior Area, Arizona, by Hopkins, Colwell, Ferguson, and Hedquist (2015).

Relatively little research has been conducted at Apache sites to date. And while a single small Apache site might not appear to be significant at first glance, when taken into consideration as part of a community of sites this cluster of sites can yield valuable information on Western Apache economy, subsistence, and social and political organization. Fifteen of the contributing properties contain Apache ceramics, a distinctive type of pottery that could help understand Western Apache ceramic manufacturing techniques, use in subsistence, and evidence of trade

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activities in the Protohistoric through Historic periods. It may be possible to source the clay used in the construction of the ceramics to differentiate between the origins of the ceramics on the various sites. (b)(3) ARPA

(b)(3) ARPA and have the potential to show what resources were being used in the area at that time, and how that relates to contemporary resource gathering today. (b)(3) ARPA  
(b)(3) ARPA, (b)(3) 25 USC 32A

(b)(3) 25 USC 32A

between sites could help understand Western Apache social organization. It is highly likely that the subsurface remains at these sites contain additional information important to understanding the Protohistoric and Historic use of the area that would only be revealed through excavation.

During the 1850-60s, the area around Miami, Arizona (a town just a few miles northeast of *Chi'chil Bildagoteel*) was a favored aggregation point for various Apache and joint Yavapai/Apache raiding parties to begin the long journey into Mexico and the Tucson region (Basso 1971). (b)(3) ARPA area was a known stronghold for Apache raiding groups (See Map D). (b)(3) NHPA where an archaeological survey has (b)(3) ARPA, (b)(3) NHPA This site, known as the (b)(3) ARPA site, is

(b)(3) ARPA

was the gathering place for Dilzhe'è, Pinaleno and Aravaipa Apaches (and a few Yavapai) to set up raids on Piman/Maricopa Villages and towns in Mexico. Broken up by California Volunteers in the mid-1860s." (G. Whitney 2003)."

(b)(3) ARPA

(b)(3) NHPA

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and

has the potential to provide

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important information on historic Apache life at *Chi'chil Bildagoteel*, including subsistence activities, social organization, pottery manufacturing techniques, and trade. Further investigation could (b)(3) NHPA

[REDACTED] The defensive nature of the location of the site could also provide information related to Western Apache defensive tactics.

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**Evaluation and Conclusion –**

The information presented in this document demonstrates the critical role that *Chi'chil Bildagoteel* plays in the “historically rooted beliefs, customs, and practices” of the Western Apaches. By definition, a Traditional Cultural Property is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that communities history, and (b) are important in maintaining the continuing cultural identity of the community. The oral histories, tribal consultation and archaeological sites point to the sacred nature of *Chi'chil Bildagoteel* and reveal a long history of use of this area for subsistence, habitation and ceremonial purposes. The information highlights the importance of the (b)(3) 25 USC 32A today.

The late Keith Basso, Apache cultural expert and scholar, said in regard to the potential loss of this sacred landscape, that the Apache view it as their ‘moral imperative’ to protect the land. Non-Apaches don’t need to understand Apache cultural phenomena and worldviews in order to recognize, respect, and acknowledge them. The Apache people know, have faith in, and believe that certain landscapes are holy and powerful. (b)(3) 25 USC 32A (b)(3) 25 USC 32A and deserves to be recognized through inclusion in the National Register of Historic Places as a Traditional Cultural Property.

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- Western Apache Ethnobotany Project
- Western Apache Place Names Project
- Western Apache Natural World Project

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**Map Appendix**

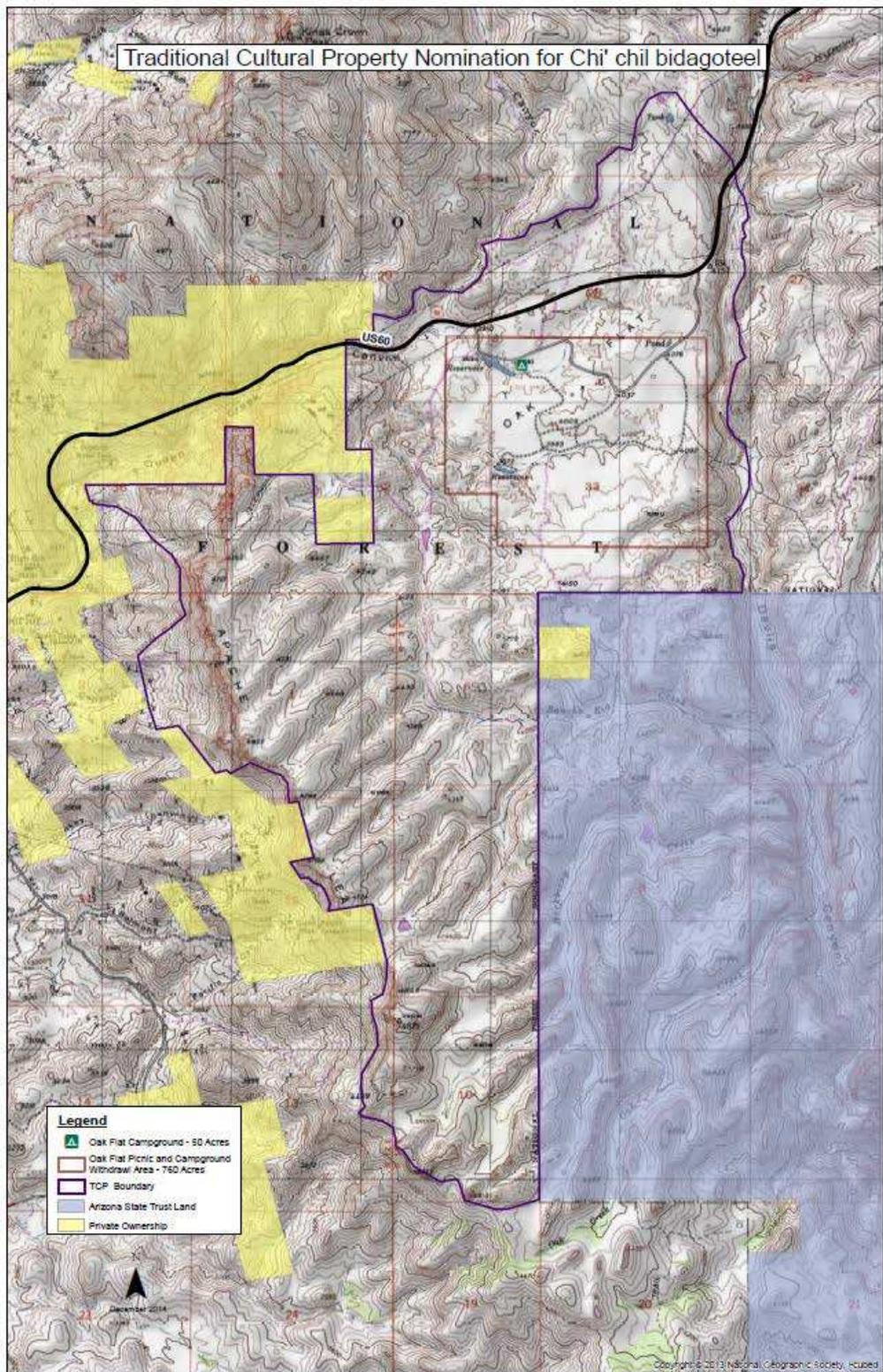
- Map A** TCP Boundary
- Map B** Pre-Reservation Western Apache Bands Map
- Map C** Goodwin Map
- Map D** Goodwin Map
- Map E** Archaeological Site Locations
- Map F** Latitude/Longitude Map Points
- Map G** Photo Log Map
- Map H** Non-Archaeological Contributing Resources Map

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**Map A TCP Boundary (larger duplicate map attached)**



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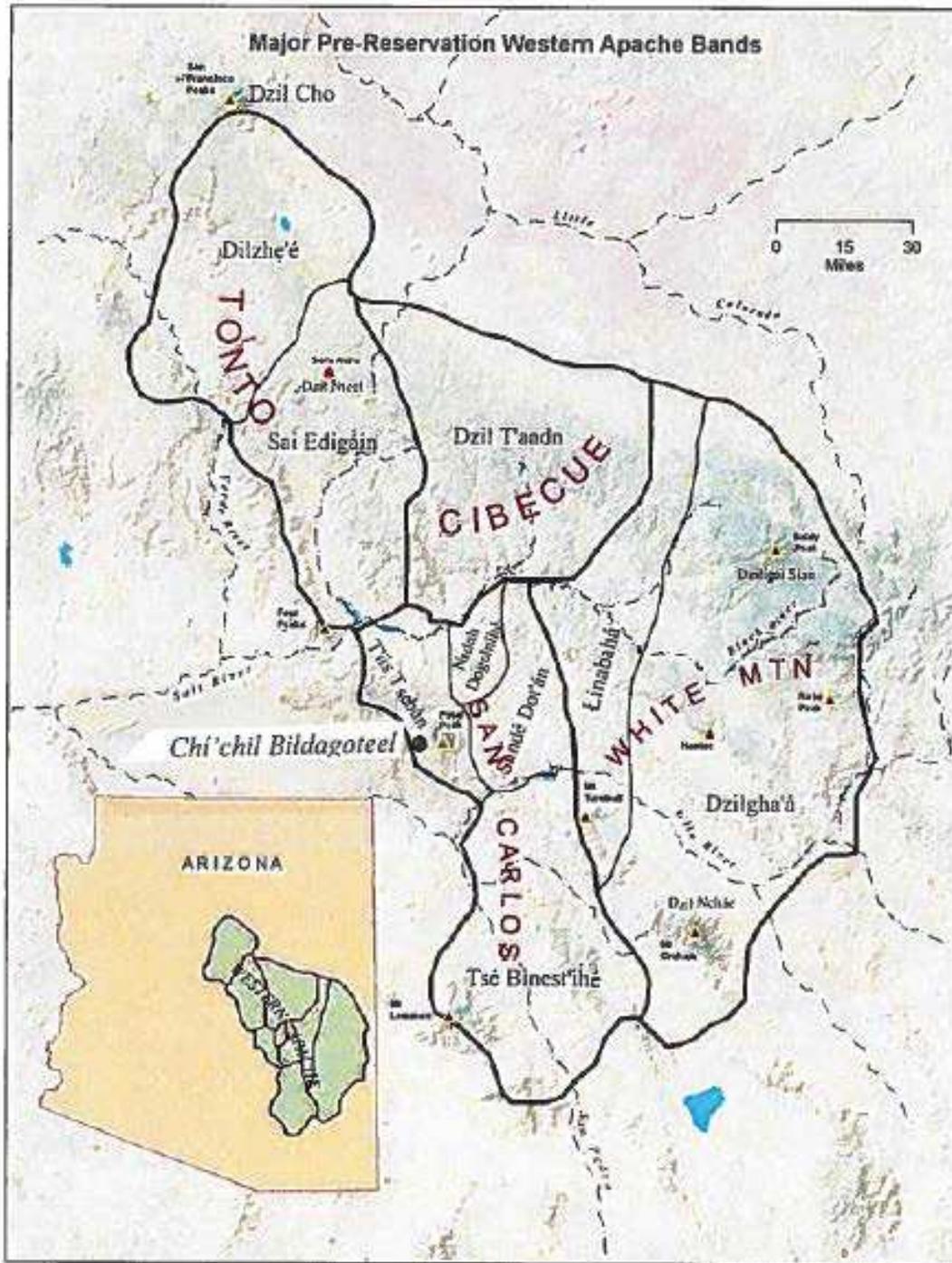
*Chí'chil Bildagoteel / Oak Flat*

Pinal County, Arizona

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**Map B Pre-Reservation Western Apache Bands Map**



**Traditional clan areas of the Western Apache, *Chí'chil Bildagoteel* is just west of Pinal Peak in the T'iis Tsebán territory. Map used with permission of San Carlos Apache Tribe Department of Forest Resources.**

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*Chí'chil Bildagoteel / Oak Flat*

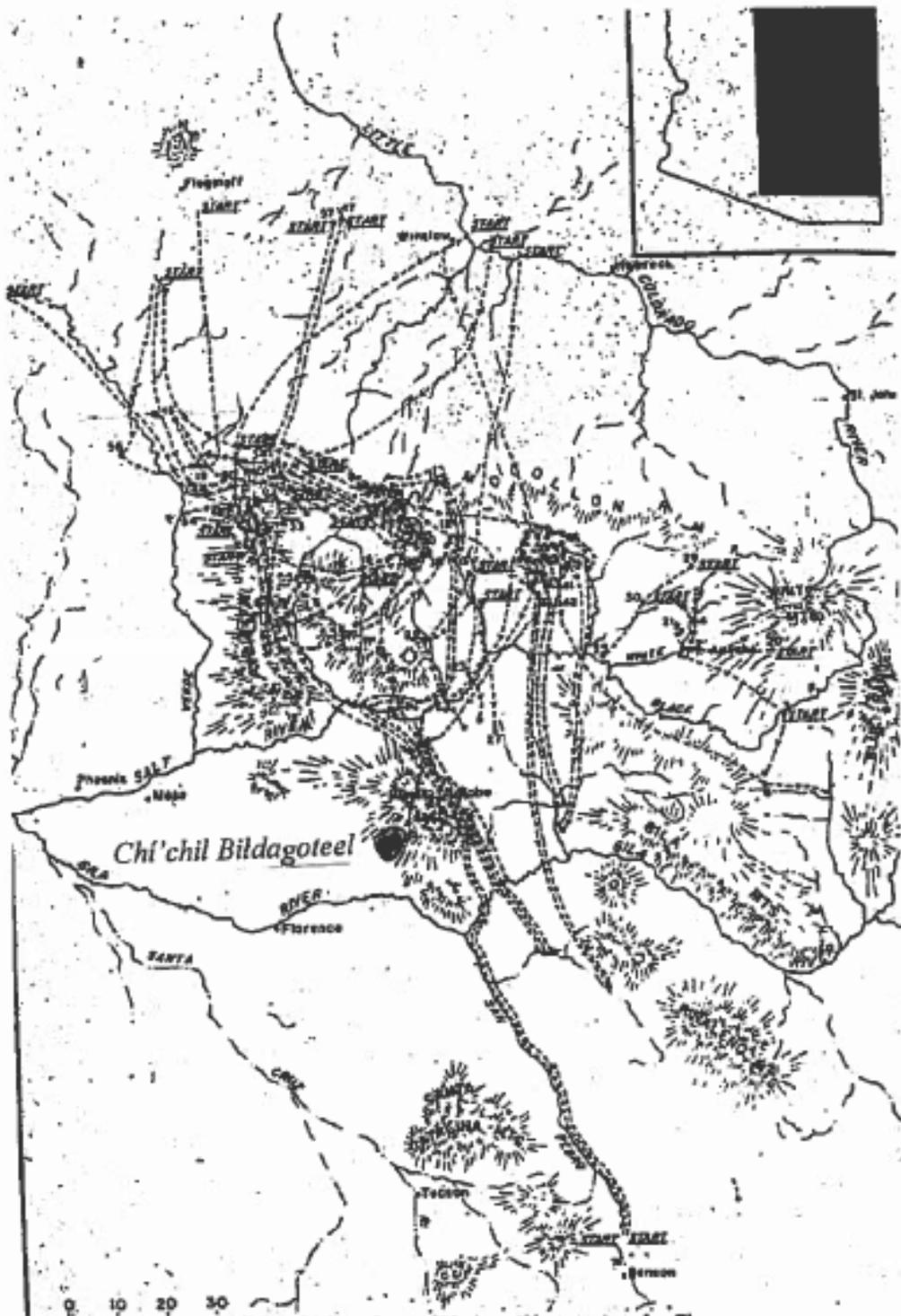
Name of Property

Pinal County, Arizona

County and State

Map C

Goodwin Map



Traditional Migrations of Various Western Apache Clans  
G. GOODWIN, *SOCIAL ORGANIZATION OF THE WESTERN APACHE*, U. CHICAGO, 1942.

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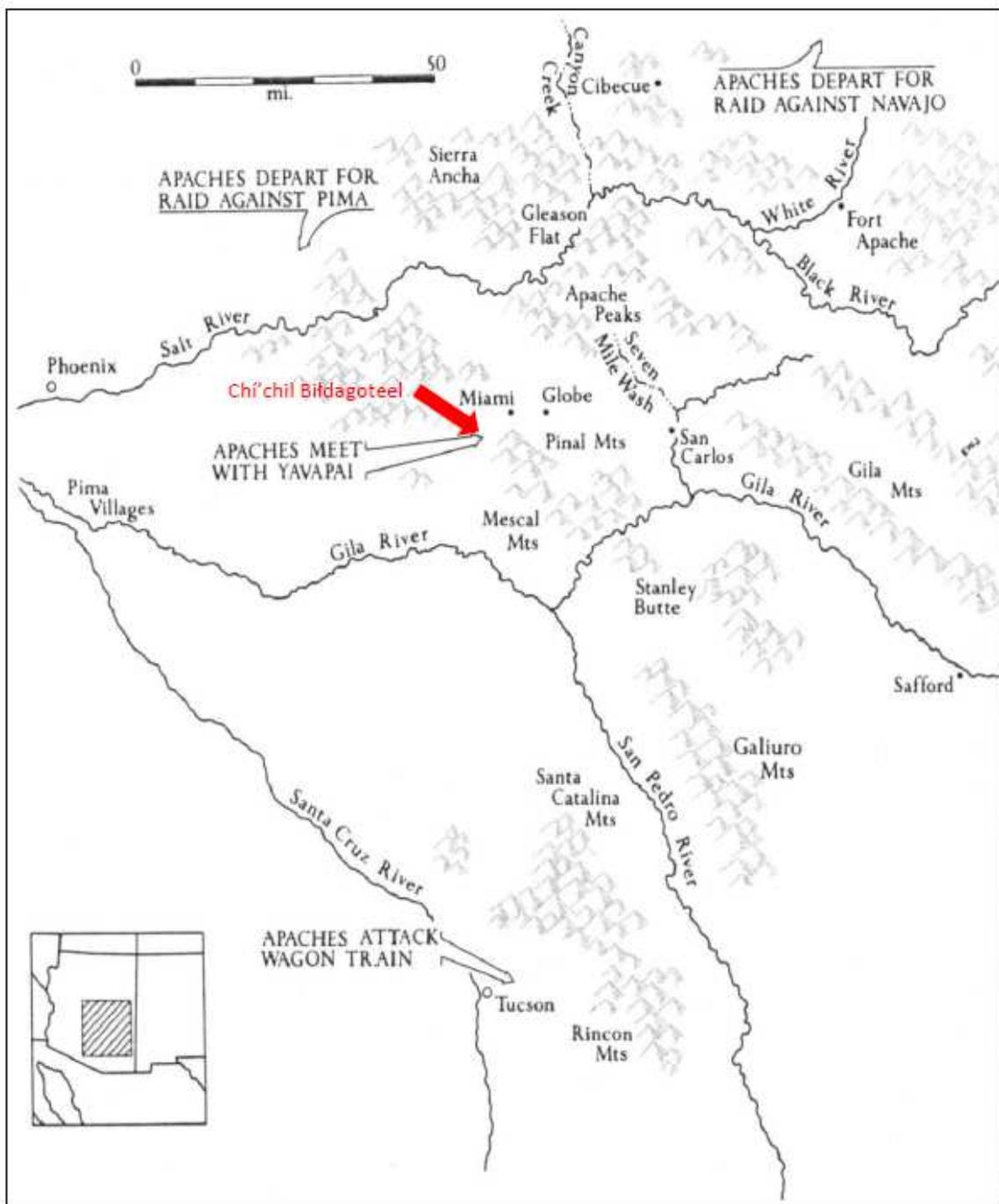
*Chí'chil Bifdagoteel / Oak Flat*

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**Map D Basso Map**



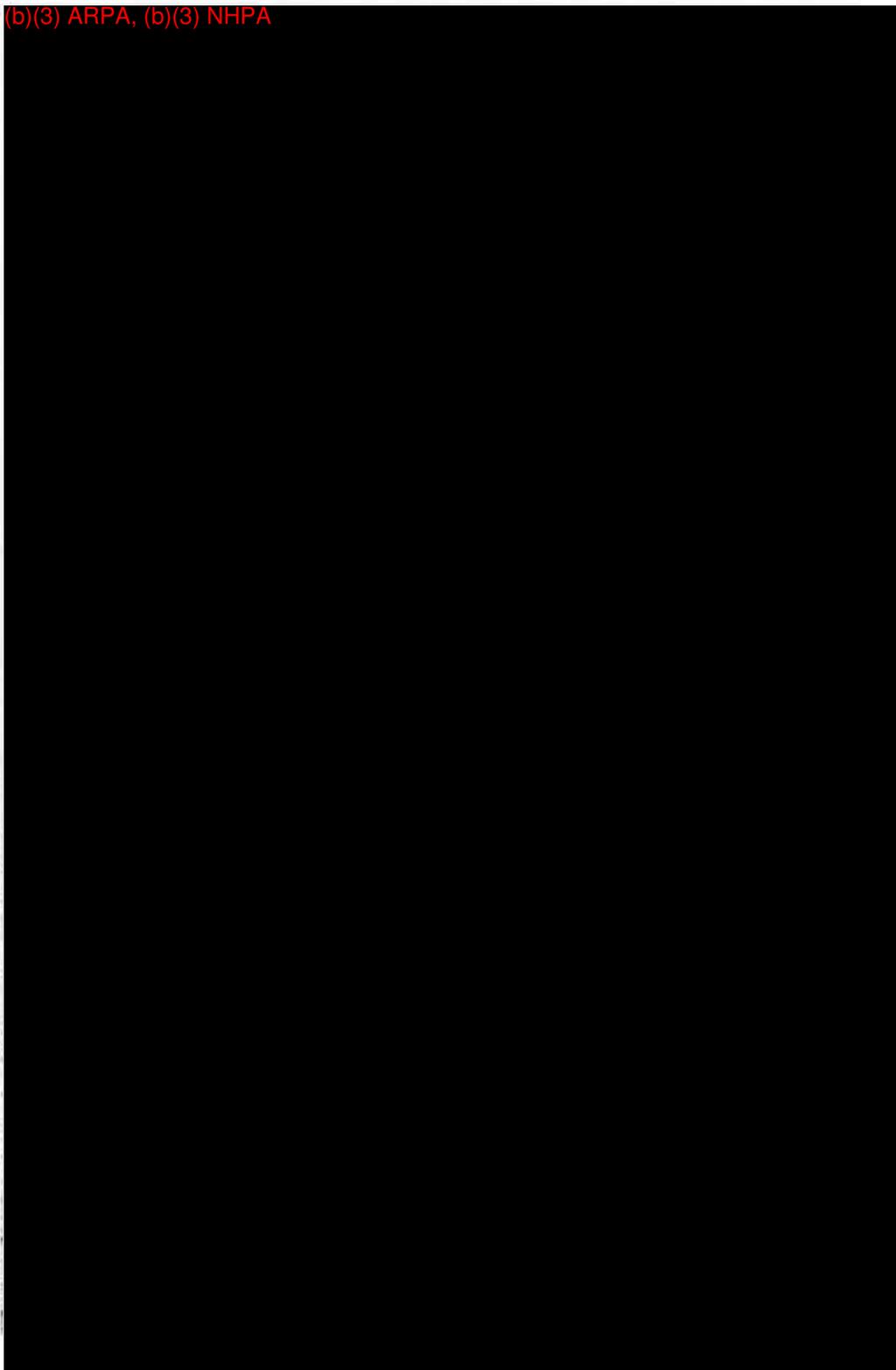
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**Map E Archaeological Site Locations**

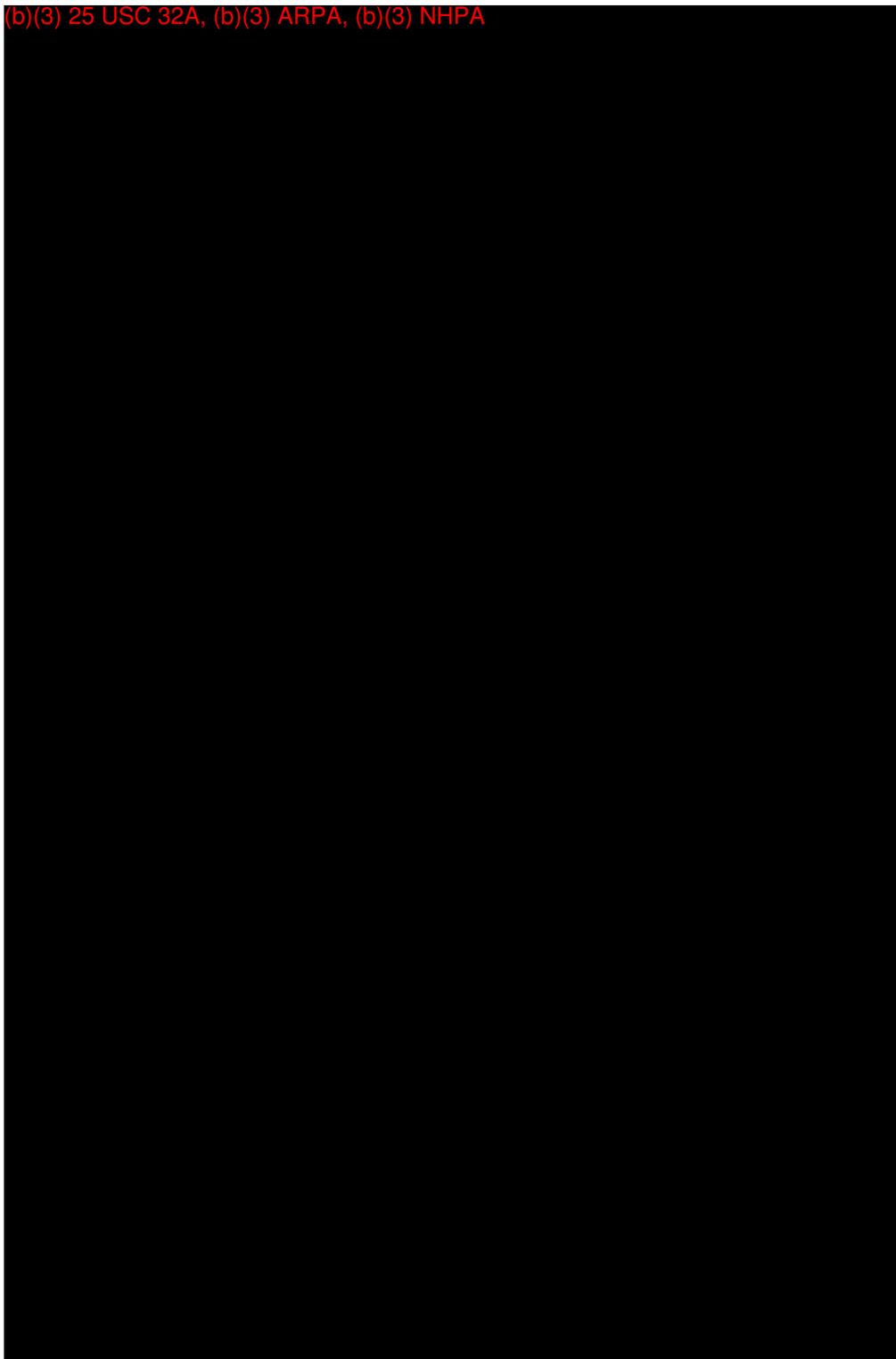


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Chí'chil Bildagoteel / Oak Flat  
Name of Property

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County and State

**Map F Latitude/Longitude Map Points**



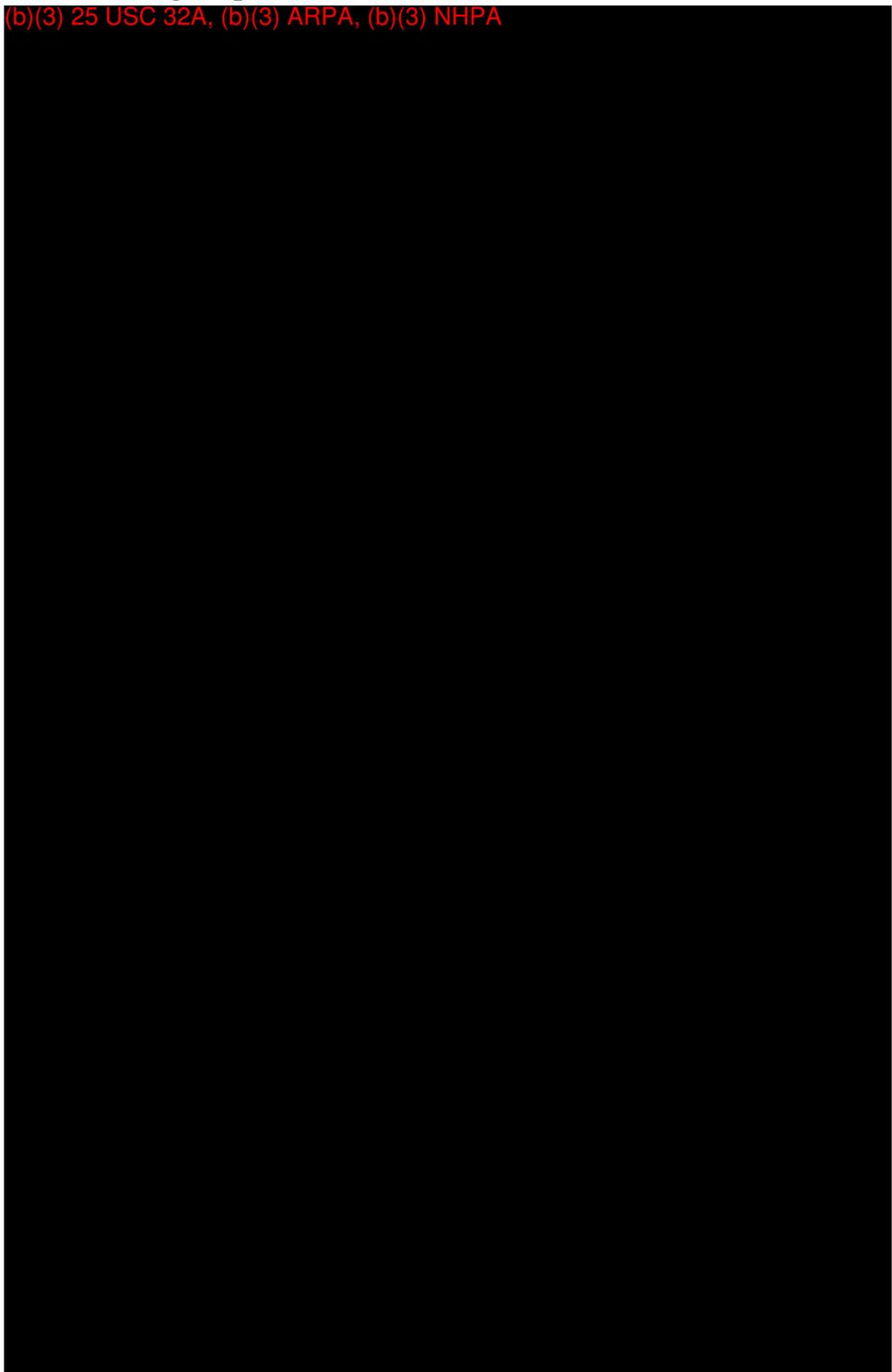
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**Map G**

**Photo Log Map**



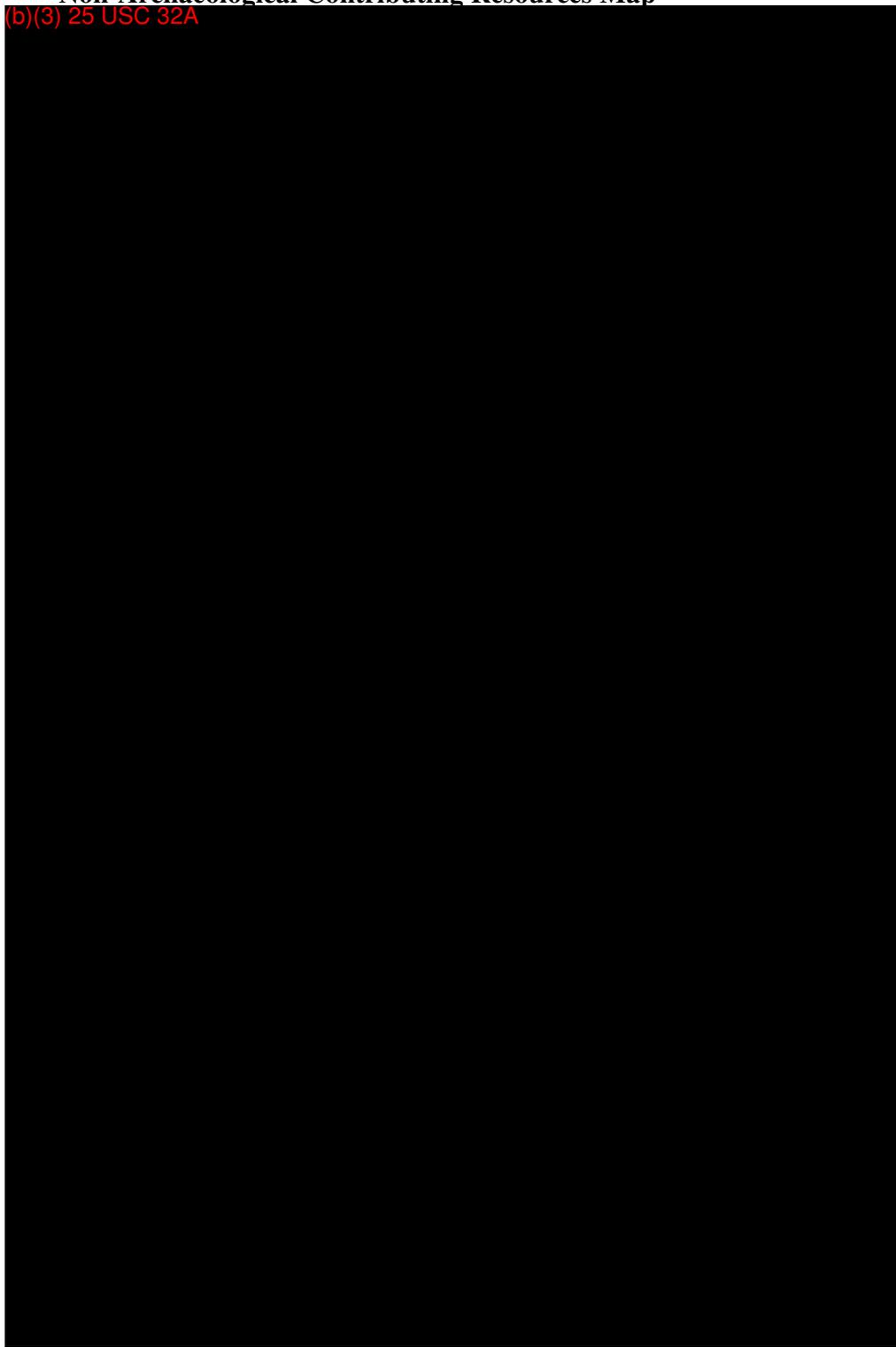
**Only general locations are shown to protect for confidentiality.**

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Chí'chil Bildagoteel / Oak Flat  
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**Map H Non-Archaeological Contributing Resources Map**



**Only general locations are shown to protect for confidentiality.**

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Chi'chil Bildagoteel / Oak Flat  
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**Photo Log**

**Reference Map G on page 47 for photo point locations**

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*Chi'chil Bildagoteel*. Taken from Apache Leap facing Southwest.

2 of 12

*Chi'chil Bildagoteel*. Looking North.

3 of 12

(b)(3) ARPA

4 of 12

(b)(3) ARPA

5 of 12

(b)(3) ARPA

6 of 12

(b)(3) ARPA

7 of 12

(b)(3) ARPA, (b)(3) 25 USC 32A

8 of 12

(b)(3) 25 USC 32A

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Sunrise Ceremony held at *Chi'chil Bildagoteel* - April 2012.

Taken from [www.azminingreform.org](http://www.azminingreform.org) 5/12/2012 1200.

10 of 12

Sunrise Ceremony held at *Chi'chil Bildagoteel* - April 2012.

Taken from [www.azminingreform.org](http://www.azminingreform.org) 5/12/2012 1200.

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Holyground singers at *Chi'chil Bildagoteel*. (photo courtesy of Yavapai-Apache Nation Cultural Preservation Office)

12 of 12

Apache Elders at *Chi'chil Bildagoteel* (photo courtesy of Yavapai-Apache Nation Cultural Preservation Office)

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*Chí'chil Bildagoteel / Oak Flat*  
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Photo 1. Taken from Apache Leap facing Southwest. On file at Tonto National Forest.



Photo 2. *Chí'chil Bildagoteel*. Looking North.

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National Park Service / National Register of Historic Places Registration Form  
NPS Form 10-900 OMB No. 1024-0018

Chí'chil Bildagoteel / Oak Flat  
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State

(b)(3) ARPA

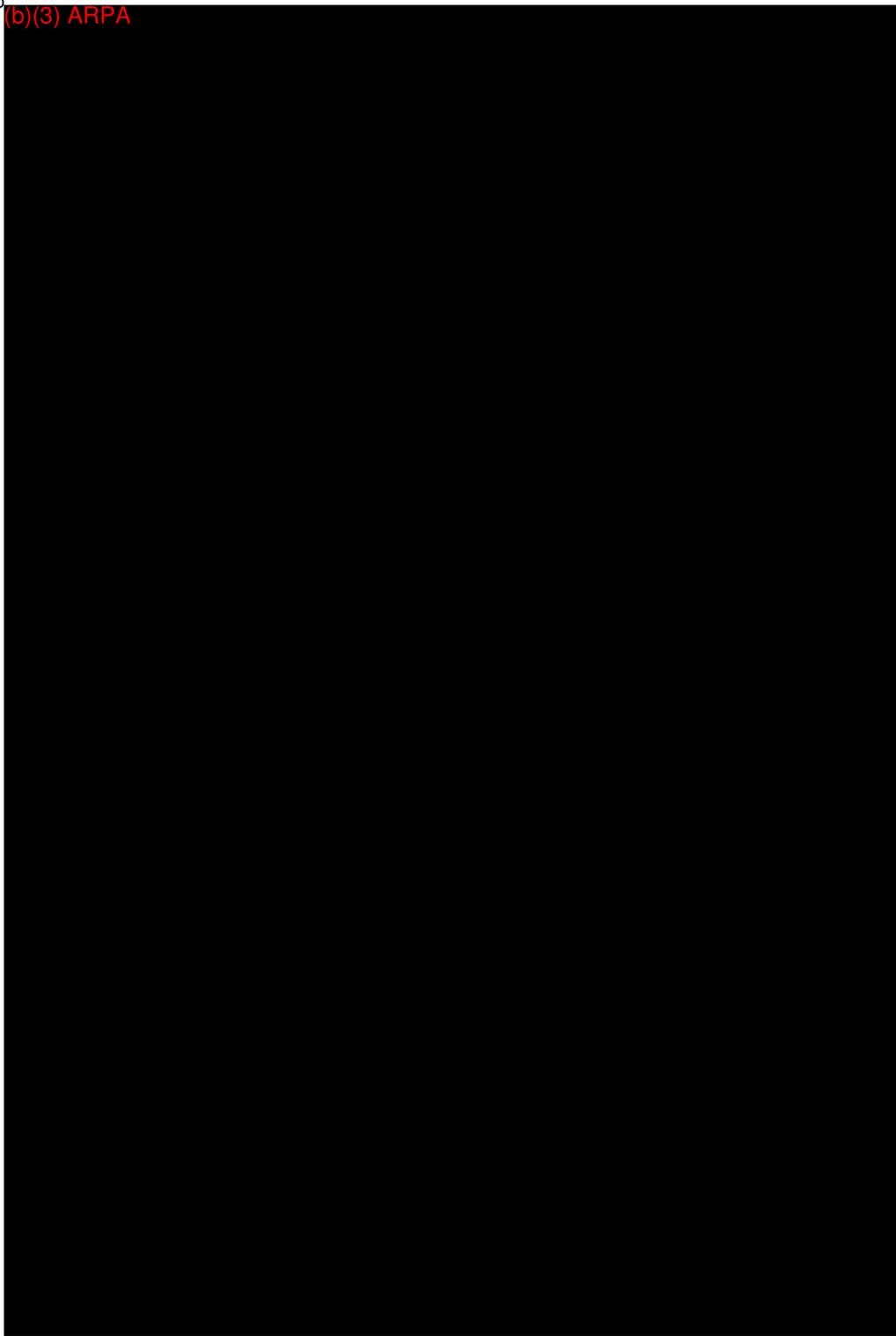


Photo 3.

Photo 4.

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Chí'chil Bildagoteel / Oak Flat  
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(b)(3) ARPA

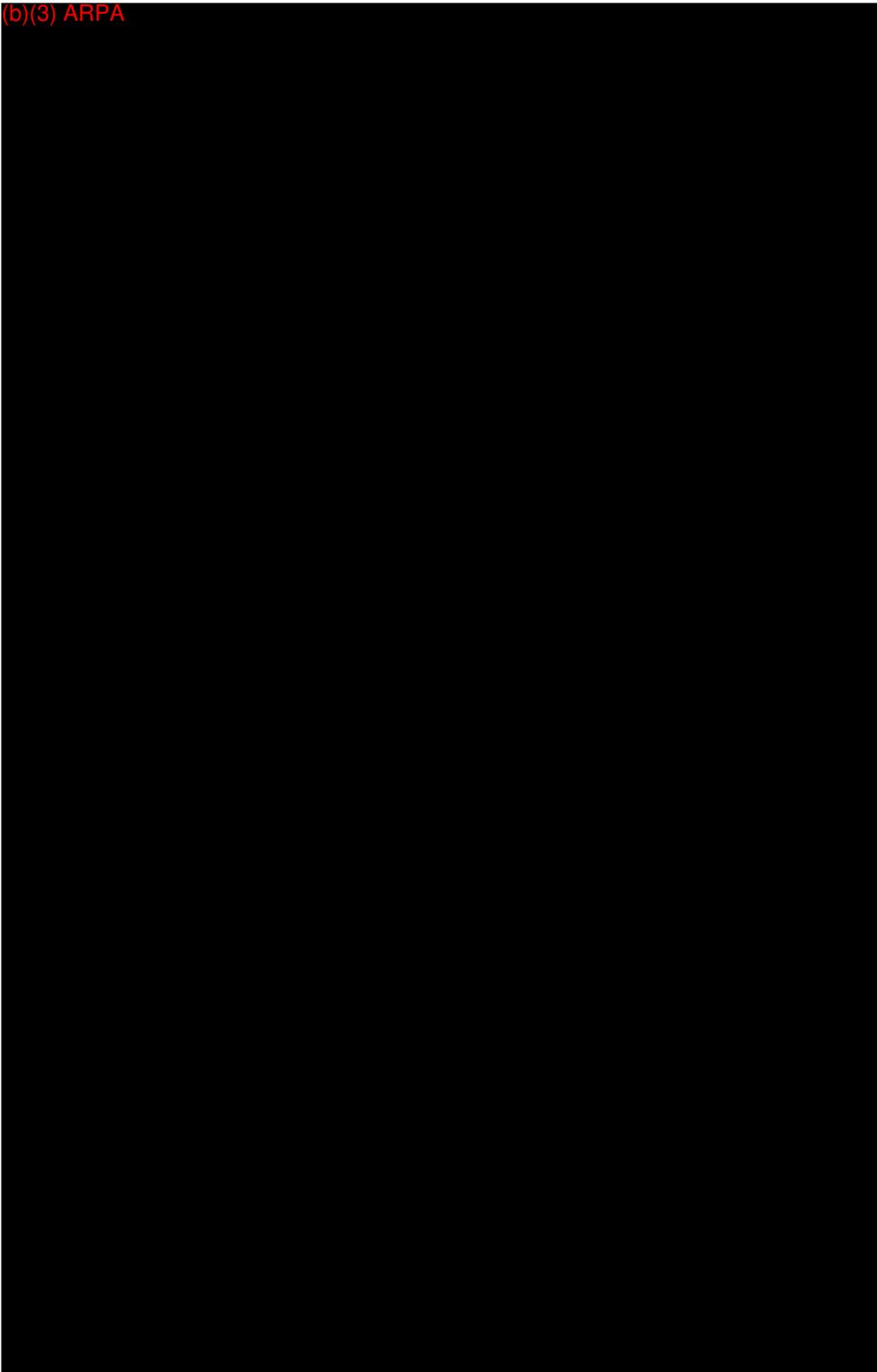


Photo 5.

Photo 6.

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Chí'chil Bildagoteel / Oak Flat  
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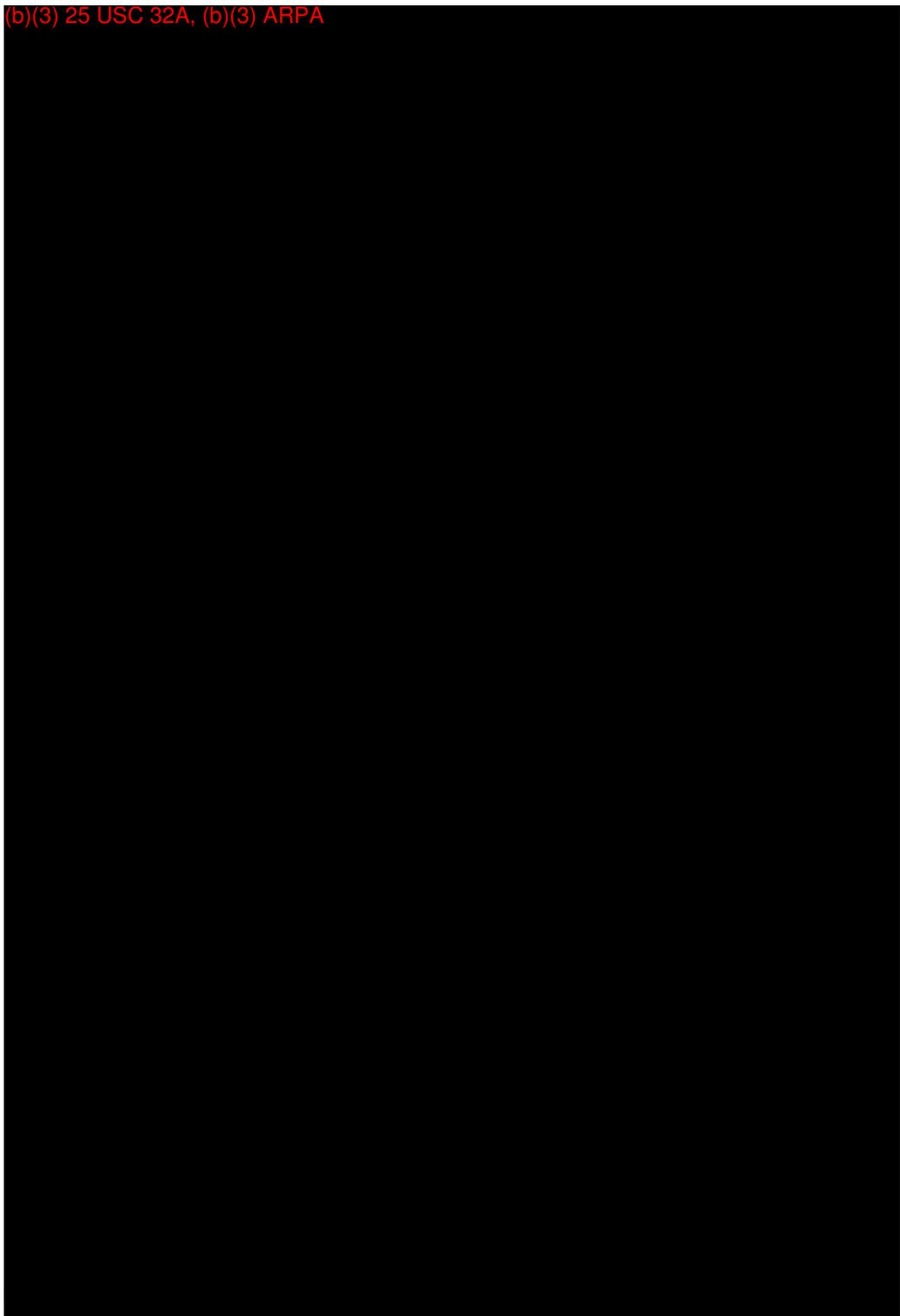


Photo 7

Photo 8

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NPS Form 10-900 OMB No. 1024-0018

*Chí'chil Bildagoteel / Oak Flat*

Pinal County, Arizona

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Photo 9. Sunrise Ceremony held at *Chí'chil Bildagoteel* 2012. Photo accessed from: <http://www.azminingreform.org>



Photo 10. Sunrise Ceremony held at *Chí'chil Bildagoteel* 2012. Photo accessed from: <http://www.azminingreform.org>

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Photo 11: Apache Holyground singers at *Chi'chil Bildagoteel* (photo courtesy of Yavapai-Apache Nation Cultural Preservation Office)

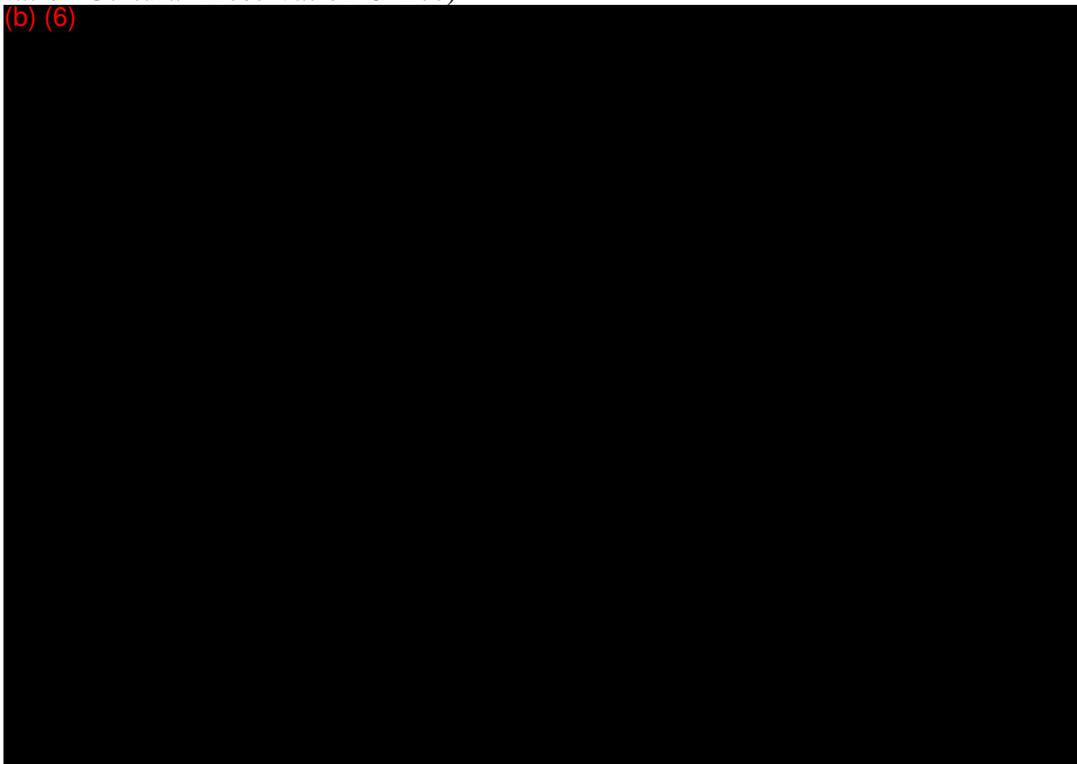


Photo 12:  
Cultural Preservation Office)

United States Department of the Interior  
National Park Service / National Register of Historic Places Registration Form  
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*Chí'chil Bildagoteel / Oak Flat*  
Name of Property

Pinal County, Arizona  
County and State

**Letters**

FOR PUBLICATION

FILED

UNITED STATES COURT OF APPEALS

MAR 13 2026

FOR THE NINTH CIRCUIT

MOLLY C. DWYER, CLERK  
U.S. COURT OF APPEALS

ARIZONA MINING REFORM  
COALITION; INTER TRIBAL  
ASSOCIATION OF ARIZONA, INC.;  
EARTHWORKS; CENTER FOR  
BIOLOGICAL DIVERSITY; ACCESS  
FUND; GRAND CANYON CHAPTER OF  
THE SIERRA CLUB,

Plaintiffs - Appellants,

v.

UNITED STATES FOREST SERVICE, an  
agency in the U.S. Department of  
Agriculture; NEIL BOSWORTH,  
Supervisor of the Tonto National Forest;  
BROOKE ROLLINS, US Secretary of  
Agriculture,

Defendants - Appellees,

RESOLUTION COPPER MINING, LLC,

Intervenor-Defendant -  
Appellee.

No. 25-5185

D.C. No.

2:21-cv-00122-DWL

OPINION

SAN CARLOS APACHE TRIBE, a  
federally recognized Tribe,

Plaintiff - Appellant,

v.

No. 25-5189

D.C. No.

2:21-cv-00068-DWL

UNITED STATES FOREST SERVICE, an  
agency in the U.S. Department of  
Agriculture; NEIL BOSWORTH,  
Supervisor of the Tonto National Forest;  
BROOKE ROLLINS,

Defendants - Appellees,

RESOLUTION COPPER MINING, LLC,

Intervenor-Defendant -  
Appellee.

GOUYEN BROWN LOPEZ; SINETTA  
LOPEZ, on behalf of herself and her minor  
child L.B.; NOMIE BROWN; ANGELA  
KINSEY, on behalf of herself and her minor  
children V.K. and M.K.,

Plaintiffs - Appellants,

v.

UNITED STATES OF AMERICA;  
UNITED STATES FOREST SERVICE;  
BROOKE ROLLINS; UNITED STATES  
DEPARTMENT OF AGRICULTURE;  
TOM SCHULTZ,

Defendants - Appellees,

RESOLUTION COPPER MINING, LLC,

Intervenor-Defendant -  
Appellee.

No. 25-5197

D.C. No.

2:25-cv-02758-DWL

Appeal from the United States District Court  
for the District of Arizona  
Dominic Lanza, District Judge, Presiding

Submitted January 7, 2026  
Phoenix, Arizona

Before: JOHNNIE B. RAWLINSON, MILAN D. SMITH, JR., AND DANIEL A. BRESS, Circuit Judges.

Opinion by Judge Milan D. Smith, Jr.  
Partial Dissent by Judge Rawlinson<sup>1</sup>

M. SMITH, Circuit Judge:

These consolidated cases concern a land exchange, mandated by the Southeast Arizona Land Exchange and Conservation Act (the Land Exchange Act), 16 U.S.C. § 539p, that targets a large copper deposit in Southeast Arizona located in the Tonto National Forest. Plaintiffs bring a variety of claims under the Land Exchange Act, the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), the Religious Freedom Restoration Act (RFRA), and the Free Exercise Clause of the United States Constitution. Because Plaintiffs' claims are unlikely to succeed on the merits, we affirm the district court's denial of Plaintiffs' request for a preliminary injunction against the land exchange.

## **FACTUAL BACKGROUND**

### **I. Statutory History**

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<sup>1</sup> Judge Rawlinson will dissent on the appraisal issue. Judge Rawlinson's partial dissent is forthcoming and will be filed with an amended opinion. The panel is issuing its decision at this time in order to explain its reasoning in resolving the pending motions addressed in the Conclusion and footnote 5.

In 2014, Congress passed the Land Exchange Act as part of the National Defense Authorization Act for Fiscal Year 2015. Pub. L. No. 113-291, § 3003, 128 Stat. 3292, 3732–41 (2014) (codified at 16 U.S.C. § 539p). The land exchange had, for many years, been hotly contested in Congress and in public debate. The Land Exchange Act directs the United States Forest Service to transfer nearly 2,500 acres of National Forest land, including Oak Flat—an Apache ceremonial religious ground—and a deposit containing almost two billion metric tons of copper, in addition to other minerals, to a private mining company, Resolution Copper Mining LLC (Resolution Copper). In exchange, Resolution Copper must provide over 5,000 acres of equally appraised land to the federal government. 16 U.S.C. §§ 539p(b)(2), (4); (d)(1).

The Land Exchange Act includes a variety of procedural requirements. For instance, the Secretary of Agriculture must consult with Native American tribes regarding their concerns related to the land exchange, *id.* § 539p(c)(3)(A), and then “seek to find mutually acceptable measures” to address those concerns and “minimize the adverse effects on the affected” tribes. *Id.* § 539p(c)(3)(B). The Land Exchange Act also mandates appraisals of the land to ensure an exchange of equal value, “conducted in accordance with nationally recognized appraisal standards.” *Id.* §§ 539p(c)(4), (5). Furthermore, the Land Exchange Act requires the Government to “prepare a single environmental impact statement [(EIS)] under the

National Environmental Policy Act of 1969” prior to conveying the land. *Id.* § 539p(c)(9)(B). That EIS, per the Land Exchange Act, “shall be used as the basis for all decisions under Federal law related to the proposed mine and the Resolution mine plan of operations and any related major Federal actions significantly affecting the quality of the human environment, including the granting of any permits, rights-of-way, or approvals for the construction of associated power, water, transportation, processing, tailings, waste disposal, or other ancillary facilities.” *Id.* Conveyance of the land must occur within 60 days of EIS publication. *See id.* § 539p(c)(10).

## **II. Procedural History**

### **a. Original Litigation**

Following issuance of the original EIS on January 15, 2021, three plaintiff groups filed suit seeking to enjoin the conveyance. Two of the groups, also Plaintiffs here—the Arizona Mining Reform Coalition (AMRC)<sup>2</sup> and the San Carlos Apache Tribe (the Tribe)—challenged the EIS’s sufficiency and raised similar claims as Plaintiffs in this litigation. The third plaintiff group, Apache Stronghold (not involved in the instant litigation) raised religious freedom claims under the Free Exercise Clause and the Religious Freedom Restoration Act (RFRA) in a separate case. *See Apache Stronghold v. United States*, No. 21-CV-00050 (D. Ariz.).

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<sup>2</sup> AMRC refers to Plaintiffs-Appellants Arizona Mining Reform Coalition, Inter Tribal Association of Arizona, Inc., Center for Biological Diversity, Earthworks, the Access Fund, and the Sierra Club.

While the *Apache Stronghold* litigation was pending, the Forest Service withdrew the EIS in March 2021 to engage in further consultation with tribal groups. However, the *Apache Stronghold* case proceeded as to the plaintiffs' RFRA and Free Exercise claims. The district court in that case eventually denied the request for a preliminary injunction, and a panel of this court affirmed; the full court then granted en banc rehearing. *See Apache Stronghold v. United States*, 519 F. Supp. 3d 591 (D. Ariz. 2021), *aff'd*, 38 F.4th 742 (9th Cir. 2022), *reh'g en banc granted, opinion vacated*, 56 F.4th 636 (9th Cir. 2022). The en banc panel reached the same result as the merits panel, ruling that the land exchange did not burden the plaintiffs' religious exercise. *See Apache Stronghold v. United States*, 101 F.4th 1036, 1044, 1051–53, 1063 (9th Cir. 2024). The Supreme Court denied review over a dissent from Justice Gorsuch, joined by Justice Thomas. *See Apache Stronghold v. United States*, 145 S. Ct. 1480, 1480–89 (2025) (Gorsuch, J., dissenting from the denial of certiorari). Apache Stronghold filed a petition for rehearing in light of the Court's subsequent decision in *Mahmoud v. Taylor*, 606 U.S. 522 (2025), which the Court denied. *Apache Stronghold v. United States*, 146 S. Ct. 285 (2025) (mem.). Justice Gorsuch again noted he would have granted the petition. *See id.*

#### **b. Current Litigation**

The Forest Service issued the revised Final EIS (FEIS) on June 20, 2025, restarting the Land Exchange Act's 60-day clock for conveyance of the land. The Forest Service also conducted the required appraisal process pursuant to the Land Exchange Act. This included one appraisal report detailing the area of federal land over which Resolution Copper holds unpatented mining claims, known as the "Mining Claim Zone," and another regarding the "Mineral Withdrawal Area," the federal land over which Resolution Copper holds no mining claims.

AMRC and the Tribe filed motions for a preliminary injunction in early 2025 in anticipation of the Forest Service's filing of the revised Final EIS, which the district court denied on June 6, 2025. However, with the Government's consent, the court entered a temporary stay until August 19, 2025, to allow for a second round of preliminary injunction briefing; the court denied that injunction request on August 15, 2025. The district court found that the plaintiffs had not "established a likelihood of success or even serious questions going to the merits of any of their" appraisal, NEPA, consultation, or National Forest Management Act (NFMA) claims.

Simultaneously, a separate set of Apache plaintiffs (the Lopez Plaintiffs) filed their own suit in the District Court for the District of Columbia on July 24, 2025, which was transferred to the District of Arizona upon the Government's motion. *See Lopez v. United States*, 2025 WL 2193001 (D.D.C. Aug. 1, 2025). The Lopez Plaintiffs raised RFRA, Free Exercise, NHPA, and NEPA claims, which the district

court rejected on August 17, 2025, when denying their motion for a preliminary injunction. Under *Apache Stronghold*, the district court ruled, the Lopez Plaintiffs' religious liberty claims were foreclosed, and nothing in *Mahmoud* changed that.

All three Plaintiff groups appealed to this court and simultaneously filed for injunctions pending appeal, seeking to block the land transfer. A motions panel of this court entered an administrative stay on August 18, 2025, referring the motions for injunction pending appeal to the merits panel.

### STANDARD OF REVIEW

“A plaintiff seeking a preliminary injunction must establish that he is likely to succeed on the merits, that he is likely to suffer irreparable harm in the absence of preliminary relief, that the balance of equities tips in his favor, and that an injunction is in the public interest.” *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 20 (2008). We have “adopted a sliding-scale approach to the *Winter* factors,” where “serious questions going to the merits and a hardship balance that tips sharply toward the plaintiff can support issuance of an injunction, assuming the other two elements of the *Winter* test are also met.” *Bennett v. Isagenix Int'l LLC*, 118 F.4th 1120, 1126 (9th Cir. 2024) (cleaned up).

We review a district court's decision to deny a motion for a preliminary injunction for abuse of discretion. See *Betschart v. Oregon*, 103 F.4th 607, 616 (9th Cir. 2024). The district court abuses its discretion “when it fails to identify ‘the

correct legal rule to apply to the relief requested’ or applies the correct rule in a way that is illogical, implausible, or unsupported by the facts.” *Shayler v. 1310 PCH, LLC*, 51 F.4th 1015, 1020 (9th Cir. 2022) (quoting *United States v. Hinkson*, 585 F.3d 1247, 1262 (9th Cir. 2009) (en banc)). In evaluating agency action, the court must determine if the agency decision was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). This “deferential standard simply ensures that the agency has acted within a zone of reasonableness.” *League of California Cities v. FCC*, 118 F.4th 995, 1014 (9th Cir. 2024) (internal quotation marks omitted).

## ANALYSIS

### I. Threshold Justiciability Issues

Plaintiffs must establish Article III standing as to each of their claims. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992) (“[S]tanding is an essential and unchanging part of the case-or-controversy requirement of Article III.”); *Davis v. FEC*, 554 U.S. 724, 734 (2008) (“Standing is not dispensed in gross. Rather, a plaintiff must demonstrate standing for each claim he seeks to press and for each form of relief that is sought.” (cleaned up)). To establish standing, Plaintiffs must show: (1) they have suffered an injury in fact that is “concrete and particularized” and “actual or imminent”; (2) that the injury they show is traceable to the challenged

action; and (3) that it is likely that a favorable decision would redress their injury. *Lujan*, 504 U.S. at 560–61.

Absent a specific private right of action, plaintiffs must assert their administrative claims via the Administrative Procedure Act’s (APA) judicial review provisions. *See* 5 U.S.C. §§ 701–706. “[A] person suing under the APA must satisfy not only Article III’s standing requirements,” but also, “[t]he interest he asserts must be ‘arguably within the zone of interests to be protected or regulated by the statute’ that he says was violated.” *Match-E-Be-Nash-She-Wish Band of Pottawatomí Indians v. Patchak*, 567 U.S. 209, 224 (2012) (quoting *Ass’n of Data Processing Serv. Orgs. v. Camp*, 397 U.S. 150, 153 (1970)). “[I]n the APA context . . . the test is not especially demanding,” and “forecloses suit only when a plaintiff’s interests are so marginally related to or inconsistent with the purposes implicit in the statute that it cannot reasonably be assumed that Congress authorized that plaintiff to sue.” *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 572 U.S. 118, 130 (2014) (cleaned up).

Finally, under the APA, only “final agency action” is reviewable. 5 U.S.C. § 704. Agency action is “final” if it “both (1) ‘mark[s] the consummation of the agency’s decisionmaking process—it must not be of a merely tentative or interlocutory nature,’ and (2) is ‘one by which rights or obligations have been determined, or from which legal consequences will flow.’” *Ctr. for Biological*

*Diversity v. Haaland*, 58 F.4th 412, 417 (9th Cir. 2023) (quoting *Bennett v. Spear*, 520 U.S. 154, 177–78 (1997)). This inquiry is meant to consider the “practical and legal effects of the agency action” and should be “pragmatic and flexible.” *Id.* (citing *Oregon Nat. Desert Ass’n v. U.S. Forest Serv.*, 465 F.3d 977, 982 (9th Cir. 2006)).

Plaintiffs have established that all of their claims are reviewable.

**a. Article III Standing**

Defendants challenge Plaintiffs’ Article III standing on two grounds: first, that they have not demonstrated actual or imminent injury flowing from the land exchange, and second, that their injuries would not be redressed by a favorable judicial decision. We disagree on both counts.

As for actual or imminent injury, under this court’s precedents, “plaintiffs may satisfy standing by showing that they face a future injury that is ‘imminent,’ or ‘certainly impending.’” *Int’l Partners for Ethical Care Inc v. Ferguson*, 146 F.4th 841, 851 (9th Cir. 2025) (quoting *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 561, 564 n.2 (1992)) (emphasis omitted). Here, the FEIS points out that “[p]hysical and visual impacts on [traditional cultural places], special interest areas, and plant and mineral resources caused by construction of the mine would be *immediate, permanent, and large in scale.*” That is enough to show imminent injury.

To demonstrate redressability, “a federal plaintiff must show only that a favorable decision is likely to redress his injury, not that a favorable decision will

inevitably redress his injury.” *Desert Citizens*, 231 F.3d at 1178 (quoting *Beno v. Shalala*, 30 F.3d 1057, 1065 (9th Cir. 1994)). “Plaintiffs have standing if ‘there is some possibility that the requested relief will prompt the injury-causing party to reconsider’ its actions.” *Massachusetts v. EPA*, 549 U.S. 497, 518 (2007). As for Plaintiffs’ appraisal claims, we have held before that injuries flowing from a flawed land exchange appraisal are redressable. *See Desert Citizens*, 231 F.3d at 1178. As we noted, if an agency is required to redo a flawed appraisal, “the particular exchange would not go through” and plaintiffs can continue to use the public land. *Id.* That is the case here.

Plaintiffs’ appraisal, consultation, and NEPA claims are also redressable by favorable judicial action, as we have held that even a temporary cessation of agency action can redress connected injuries. *See W. Watersheds Project v. Grimm*, 921 F.3d 1141, 1148 (9th Cir. 2019). As the district court correctly noted, “every day that Oak Flat remains intact is another day that members of the Tribe can use the land in its current, unspoiled form for religious purposes and ceremonies. Thus, even a temporary delay may, for example, allow another Sunrise Ceremony to take place.”

Therefore, Plaintiffs have demonstrated that they have Article III standing.<sup>3</sup>

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<sup>3</sup> Though the parties do not contest Plaintiffs’ standing for their religious liberty claims, we must nonetheless ensure Plaintiffs have standing for those claims. *See United States v. Hays*, 515 U.S. 737, 742 (1995). Here, the Lopez Plaintiffs face an imminent inability to practice their religion at Oak Flat, an injury traceable to the

## b. Prudential Standing

The Government and Resolution Copper next argue that AMRC has no prudential standing to bring its appraisal claim under the APA. In their view, there is no injury to AMRC from an incorrect appraisal (to the degree the appraisal was incorrect). The district court rejected those arguments below, holding that this court's decision in *Desert Citizens Against Pollution v. Bisson*, 231 F.3d 1172 (9th Cir. 2000), permits standing for appraisal claims in land exchange cases like this one. The Defendants attempt to distinguish *Desert Citizens* on the grounds that it involved a discretionary land exchange under the Federal Land Policy and Management Act (FLPMA). In their view, AMRC's appraisal claims do not fall within the zone of interests of the Land Exchange Act's appraisal provisions, and *Desert Citizens* is inapposite because the Land Exchange Act, unlike the FLPMA, does not contain a judicial review provision.

Though the FLPMA and Land Exchange Act are different in some respects, the flexible zone-of-interests test supports prudential standing here. We have held that we “may look beyond the section sued under to the statute or act as a whole ‘to understand Congress’ overall purposes.’” *Nat’l Wildlife Fed’n v. Burford*, 871 F.2d 849, 852 (9th Cir. 1989) (quoting *Clarke v. Sec. Indus. Ass’n*, 479 U.S. 388, 401

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Government's decision to transfer the land to Resolution and redressable by a decision barring that transfer. That suffices to establish standing.

(1987)), and here, the Land Exchange Act contains statutory provisions that seek to protect the public and Native groups' interests in the land. *See* 16 U.S.C. §§ 539p(c)(3), (9); (d)(2); (g); (i)(3). There is also a “public review” sub-provision in the Land Exchange Act’s appraisal section. *See id.* § 539p(c)(4)(B)(iv). Taking these provisions together, and given the “lenient approach” to the zone-of-interests test in the APA context, *Lexmark*, 572 U.S. at 130, AMRC has established standing for its appraisal claim.

### **c. Final Agency Action**

Finally, the FEIS is reviewable as “final agency action” because publication triggers the 60-day time limit for the land exchange, and no further agency action or decision-making process is needed for that deadline to run. *See Ctr. for Biological Diversity*, 58 F.4th at 417 (“An agency action is ‘final’ only if it both (1) ‘mark[s] the consummation of the agency’s decisionmaking process—it must not be of a merely tentative or interlocutory nature,’ and (2) is ‘one by which rights or obligations have been determined, or from which legal consequences will flow.’” (quoting *Bennett*, 520 U.S. at 177–78)); *Oregon Nat. Desert Ass’n*, 465 F.3d at 982 (“In determining whether an agency’s action is final, we look to whether the action amounts to a definitive statement of the agency’s position or has a direct and immediate effect on the day-to-day operations of the subject party, or if immediate compliance with the terms is expected.” (cleaned up)); *id.* at 984 (“[W]e look to see

whether the agency has rendered its last word on the matter to determine whether an action is final and is ripe for judicial review.” (internal quotation marks omitted)).

Accordingly, Plaintiffs have established that their NEPA claims are justiciable.

**II. Plaintiffs have not established a likelihood of succeeding on the merits, nor raised serious questions regarding, any of their claims.**

**a. AMRC is not likely to succeed on, nor has it raised serious questions regarding, its appraisal claims.**

The Land Exchange Act sets out a set of appraisal requirements governing the land at issue. *See* 16 U.S.C. §§ 539p(c)(4), (5). These include the requirements that the appraisals be prepared “in accordance with nationally recognized appraisal standards” and that the land then be exchanged for non-Federal land of equal value. *Id.* § 539p(c)(4)(b)(i). Among other things, national appraisal standards require the value of the appraised land to reflect “the highest and best use of the property” “as if in private ownership and available for sale in the open market,” 36 C.F.R. § 254.9(b)(1)(i), meaning “the most probable and legal use of [the] property.” *Id.* § 254.2.

These appraisals also reflect the general mining laws, pursuant to which “[d]iscovery’ of a mineral deposit, followed by the minimal procedures required to formally ‘locate’ the deposit, gives an individual the right of exclusive possession of the land for mining purposes.” *United States v. Locke*, 471 U.S. 84, 86 (1985) (quoting 30 U.S.C. § 26); *see also United States v. Shumway*, 199 F.3d 1093, 1098–

99 (9th Cir. 1999) (“[T]he finder of valuable minerals on government land is entitled to exclusive possession of the land for purposes of mining and to all the minerals he extracts.”). “[A]n unpatented mining claim remains a fully recognized possessory interest.” *Locke*, 471 U.S. at 86.

The Forest Service prepared one appraisal report detailing the area of federal land over which Resolution Copper holds unpatented mining claims, known as the “Mining Claim Zone” (MCZ), and another regarding the “Mineral Withdrawal Area” (MWA), the federal land over which Resolution Copper holds no mining claims. There are two main differences between these two parcels. First, the MCZ contains approximately 35 billion pounds of copper ore, while the MWA contains approximately 5 billion. Second, the MCZ is “encumbered by 148 unpatented mining claims that give Resolution . . . the exclusive right to extract the minerals beneath the MCZ,” while Resolution has no such claims against the MWA.

In its appraisal for the MWA, the Forest Service concluded that the parcel was worth \$22 million after factoring in the value of the underlying copper ore (valued at approximately \$17.5 million). It determined that the highest and best use of the land was “exploration and development of a mineral resource,” as no party had mining claims to the underlying minerals. However, for the MCZ, the agency noted that because Resolution had unpatented mining claims to the minerals, the mineral rights were “not part of the estate owned by the United States.” Therefore, the

highest and best use was “surface land use in support of a mining operation,” and the land was only worth about \$2 million.

There was no error in this appraisal. As the district court correctly explained, “AMRC’s criticisms all flow from a misunderstanding of how unpatented mining claims work.” The United States has a “finders keepers” regime for mining claims. In other words, whoever finds minerals on federal land gains an exclusive possessory interest in the land “for purposes of mining and to all the minerals he extracts” from that land. *Shumway*, 199 F.3d at 1098–99. Here, Resolution Copper owns the right to mine the minerals in the MCZ and the minerals themselves, once mined. As the district court determined, if the appraisal had included the value of the MCZ minerals in what the federal government owned, that “would force Resolution Copper, as part of the land exchange, to pay the federal government for the copper it effectively already owns the exclusive right to mine.” Indeed, the Land Exchange Act itself indicates that Congress did not contemplate that the appraisal would include the value of the minerals in the MCZ. The statute emphasizes that “[n]othing in this section shall interfere with, limit, or otherwise impair, the unpatented mining claims or rights currently held by Resolution Copper on the Federal land.” 16 U.S.C. § 539p(i)(1)(C). Effectively wiping out the value of Resolution Copper’s mining claims and forcing it to pay twice for its existing rights would undeniably “interfere with” and “impair” those claims. *Id.*

AMRC's arguments to the contrary are unavailing. AMRC first argues that the appraisal improperly "based its 'highest and best use' valuation on the current status of the federal lands, instead of its value on the future open market after the lands are private." To reach this conclusion, AMRC seems to assume that "as if in private ownership" means as if owned by Resolution or some other private party in fee simple after the land exchange has concluded. But this is an erroneous reading of the regulations. The better interpretation of the term "as if in private ownership" is that the appraiser needs to determine the present value of the federal lands as if they are exploited for profit by a hypothetical private party. AMRC has failed to highlight any authority suggesting that Congress's decision to transfer this land to Resolution somehow defeats Resolution's already-existing mining claim over that land.

AMRC's remaining arguments fare no better. For instance, AMRC points to regulations that require appraisers to "consider the contributory value of any interest in land such as water rights, minerals, or timber, to the extent they are consistent with the highest and best use of the property." 36 C.F.R. §254.9(b)(1)(iv). That is what the appraiser did here. While it is true that the Government owns the underlying mineral estate, that interest has no practical value because the Government does not own the right to mine those minerals. AMRC ignores language in the regulations that requires appraisers to account for "all encumbrances" on the

property. *Id.* § 254.9(c)(4). Indeed, § 4.6.5.2 of the Uniform Appraisal Standards for Federal Land Acquisitions (which apply “to the extent appropriate” under § 254.9) emphasizes that it is “improper to disregard preexisting encumbrances and their impact on the property,” and when encumbered property is totally acquired, “the measure of compensation is the market value of the property as encumbered.”

Finally, AMRC also points to various statements in the legislative history suggesting that the appraisals must include a valuation of relevant mineral rights. But as the district court aptly explained, those references most naturally apply to the Mineral Withdrawal Area, over which Resolution Copper holds no mining rights.

AMRC’s appraisal arguments are really a challenge to the general mining laws. But “[d]espite much contemporary hostility to the Mining Law of 1872 and high level political pressure by influential individuals and organizations for its repeal, all repeal efforts have failed, and it remains the law.” *Shumway*, 199 F.3d at 1098. Accordingly, we reject AMRC’s appraisal claims.

**b. Plaintiffs are not likely to succeed on, nor have they raised serious questions regarding, their NEPA claims.**

“NEPA imposes no substantive environmental obligations,” but instead “is a purely procedural statute that . . . simply requires an agency to prepare an EIS.” *Seven Cnty. Infrastructure Coal. v. Eagle Cnty.*, 605 U.S. 168, 173 (2025). “Importantly, NEPA does not require the agency to weigh environmental consequences in any particular way. Rather, an agency may weigh environmental

consequences as the agency reasonably sees fit under its governing statute.” *Id.* Arbitrary and capricious review of NEPA compliance involves only “confirm[ing] that the agency has addressed environmental consequences and feasible alternatives as to the relevant project.” *Id.* at 180. This review “should afford substantial deference to the agency” and “should not micromanage those agency choices so long as they fall within a broad zone of reasonableness.” *Id.* at 180, 183.

Plaintiffs argue that the FEIS here fails to comply with NEPA in six ways: (1) it fails to properly analyze the land exchange’s impacts on water; (2) it fails to consider comments from other agencies; (3) it fails to consider sufficient mitigation measures; (4) it fails to consider certain expert evidence; (5) it fails to consider reasonable alternatives; and (6) it violates NEPA’s length requirement. Under the deferential review the Supreme Court mandated in *Seven County*, these arguments are unlikely to succeed.

#### **i. Cumulative Water Impacts**

AMRC first argues that the Government failed to consider “the Mine’s cumulative pumping impacts on the aquifer or existing wells alongside the groundwater impacts of the 275-square mile ‘Superstition Vistas’ mega development.” AMRC asserts that the Government only analyzed a portion of the impact and dismissed the rest as “speculative.” In AMRC’s view, this “conceptual” discussion of the development’s water demands is insufficient to comply with NEPA.

Where there are “plain facts before” an agency, AMRC suggests, it cannot choose “to ignore [that] existing and readily available technical information.”

Under the circumscribed NEPA review standard the Supreme Court set out in *Seven County*, however, the Government’s water analysis as to the Superstition Vistas development suffices. First, the Court in *Seven County* expressly denied that the Government has an obligation under NEPA to consider the impact of “a housing development that might someday be built” near the operative project, even if the “effects from [that] separate project may be factually foreseeable.” 605 U.S. at 187; *see also id.* at 190 (distinguishing separate, future projects from ones “interrelated and close in time and place to the project at hand,” such as a “residential development next door to and built at the same time as a ski resort”). This is especially true because AMRC has made no argument nor provided any evidence suggesting that the Forest Service has regulatory authority over the Superstition Vistas development. *See id.* at 188 (discussing limited agency obligation to consider “separate projects” over which it “possesses no regulatory authority”).

Second, the Government’s decision to draw a line between modeling and analyzing the cumulative water impact from “the portion of Superstition Vistas that has a demonstrated source of water,” and not “[o]ther portions of Superstition Vistas without demonstrated water supplies,” is the type of discretionary decision about “how far to go in considering indirect environmental effects” that we must defer to

pursuant to *Seven County*. *Id.* at 182. This is particularly true given the agency *did* analyze the impact of the Superstition Vistas development on water supplies. While it did so qualitatively, rather than quantitatively, as Plaintiffs would prefer, the government’s chosen method of analysis is entitled to substantial deference. AMRC’s cumulative water NEPA claim is therefore unlikely to succeed on the merits.

## ii. Other Agencies’ Comments

In determining whether the Government has complied with NEPA, the court must generally defer to “the agency regarding what level of detail is required.” *Cascadia Wildlands v. United States Bureau of Land Mgmt.*, 153 F.4th 869, 903 (9th Cir. 2025). “Courts should afford substantial deference and should not micromanage those agency choices so long as they fall within a broad zone of reasonableness.” *Id.* (quoting *Seven Cnty.*, 605 U.S. at 183). Under this deferential standard of review, AMRC’s arguments regarding comments from other agencies are unlikely to succeed.

AMRC argues that the “the Forest Service failed to consider the full scope of criticisms raised by the Bureau of Land Management (‘BLM’) and the Arizona State Land Department (‘ASLD’) about the FEIS.” It contends that the FEIS does not acknowledge the BLM Report at all, ignoring that agency’s water-related concerns. AMRC also asserts that the FEIS fails to sufficiently address the ASLD’s “actual and

specific concerns related to the Mine’s direct, indirect, and cumulative socioeconomic impacts on” Arizona’s State Land Trust.

As the district court explained, “it will always be possible to identify some argument, raised by some stakeholder, that could have been analyzed in more detail in the FEIS.” But the Supreme Court has made clear that “the question of whether a particular report is detailed enough in a particular case itself requires the exercise of agency discretion—which should not be excessively second-guessed by a court.” *Seven Cnty.*, 605 U.S. at 181. Here, Chapter 4 of the FEIS contains an analysis of regional groundwater, including qualitative and quantitative analyses of water sufficiency. The Government therefore did not ignore the agencies’ comments, and arguments about the relative detail it afforded particular comments must fail. AMRC’s claims regarding the FEIS’s treatment of the BLM and ASLD’s comments are unlikely to succeed.

### **iii. Mitigation Measures**

AMRC’s final argument fares no better. AMRC contends that the FEIS “failed to fully analyze potential mitigation measures, especially regarding the groundwater pumping and transport of water via the proposed pipelines.” But as the district court correctly concluded, the Forest Service considered mitigation measures across “hundreds of pages” in the FEIS. The FEIS explicitly discusses various commenters’ concerns about groundwater impacts and notes the limits of the Forest Service’s

regulatory authority. AMRC's argument is just another example of it taking issue with the depth of treatment the Forest Service afforded certain issues in the FEIS. But as with AMRC's other arguments, the Supreme Court has made clear that it is largely within the agency's discretion to determine the detail afforded to particular issues in an EIS, especially those issues over which it lacks regulatory authority. *See Seven Cnty.*, 605 U.S. at 181, 188. AMRC's claim regarding the FEIS's treatment of possible mitigation measures is therefore also unlikely to succeed on the merits.

#### **iv. Extra-Record Evidence**

The Tribe's NEPA claim centers around two extra-record declarations submitted in the district court. The Tribe argues that we should consider those declarations even though they were not part of the administrative record, and that on the merits, the FEIS fails to address concerns raised by the declarations regarding tailings storage and transport, acid rock damage, and hydrological concerns.

Judicial review of agency decision-making should be focused on the administrative record. *See Ctr. for Biological Diversity v. United States Fish & Wildlife Serv.*, 450 F.3d 930, 943 (9th Cir. 2006). However, there are

four exceptions to this rule, allowing extra-record materials (1) if necessary to determine whether the agency has considered all relevant factors and has explained its decision, (2) when the agency has relied on documents not in the record, (3) when supplementing the record is necessary to explain technical terms or complex subject matter, or (4) when plaintiffs make a showing of agency bad faith.

*Id.* (cleaned up). These exceptions are “narrowly construed,” and the party invoking them has a “heavy burden to show that the additional materials sought are necessary to adequately review” the agency decision. *Fence Creek Cattle Co. v. United States Forest Serv.*, 602 F.3d 1125, 1131 (9th Cir. 2010).

Even assuming, without holding, that an exception applies here, the Tribe’s arguments fail on the merits. The FEIS addressed each of the topics the Tribe highlights from the declarations, including tailings and pipeline safety, acid rock drainage, and hydrological concerns. Indeed, the Forest Service directly responded to comments by Plaintiffs’ experts regarding the same concerns. The Tribe’s arguments amount to a disagreement with the FEIS’s scientific conclusions as to each of these topics. Judicial review, however, must be at its most deferential “when an agency makes . . . predictive or scientific judgments.” *Seven Cnty.*, 605 U.S. at 182; *see also Earth Island Inst. v. United States Forest Serv.*, 351 F.3d 1291, 1301 (9th Cir. 2003) (“[A]n agency is entitled to wide discretion in assessing the scientific evidence, so long as it takes a hard look at the issues and responds to reasonable opposing viewpoints.”). Accordingly, the Tribe’s NEPA claim is unlikely to succeed.

#### **v. Alternative Mining Techniques**

The Lopez Plaintiffs argue that the FEIS is “deficient” because it does not analyze alternative mining methods that might preserve Oak Flat. They draw on case law explaining that the “heart” of an EIS is its effort to “study, develop, and

describe appropriate alternatives to the proposed agency action, thus informing policymakers and the public of options that would avoid or minimize adverse effects on the environment.” *Ctr. for Biological Diversity v. United States Bureau of Land Mgmt.*, 141 F.4th 976, 990 (9th Cir. 2025) (cleaned up).

In determining whether an EIS has appropriately considered alternatives, we have set out a two-step process. First, we must determine “whether or not the EIS’s Purpose and Need Statement was reasonable.” *Id.* at 995 (cleaned up). Second, we “employ a rule of reason analysis to determine whether the agency considered an adequate range of alternatives to the proposed action.” *Id.* (internal quotation marks omitted). However, “an agency need not consider an infinite range of alternatives, only reasonable or feasible ones. Nor does NEPA require a discussion of alternatives that are unlikely to be implemented or that are inconsistent with the agency’s basic policy objectives.” *Id.* (cleaned up). If an alternative is eliminated from detailed consideration, all the agency is required to do is to “briefly discuss the reasons for [its] elimination.” 40 C.F.R. § 1502.14(a).

The Lopez Plaintiffs challenge only the adequacy of the range of alternatives the FEIS considered. They argue that the Government should have analyzed “techniques like cut-and-fill or sublevel stoping.” Ultimately, as with the Tribe’s NEPA claim, the heart of this claim is a disagreement with the Government’s scientific conclusions as to the feasibility and appropriateness of potential alternative

mining approaches. Even if the Forest Service’s lack of regulatory authority over the eventual mine was not itself a bar to the Lopez Plaintiffs’ argument, *see Seven Cnty.*, 605 U.S. at 188, the agency’s approach to analyzing the alternatives is entitled to substantial deference. *See id.* at 181–82 (“[A] reviewing court must be at its most deferential” when considering an agency’s “predictive and scientific judgments in assessing . . . alternatives.” (internal quotation marks omitted)). The record shows that the agency adequately considered possible alternatives and reasonably rejected them due to technical and economic infeasibility. As the agency noted, if alternative techniques were used on the Oak Flat deposit, an estimated 80 percent of the copper tonnage would have to be abandoned, as it would be uneconomical to mine. This explanation is sufficient under NEPA, and under the highly deferential scheme the Supreme Court set out in *Seven County*, we must afford the agency’s reasonableness determinations significant deference. Therefore, the Lopez Plaintiffs’ NEPA claim based on potential mining technique alternatives is unlikely to succeed.

#### **vi. Page Limits**

Finally, the Lopez Plaintiffs argue that the FEIS exceeds the page limit requirements established by recent amendments to NEPA under the BUILDER Act. 42 U.S.C. § 4336a(e)(1). In their view, this impeded NEPA’s goals by “forcing them to digest thousands of pages of material and litigate their claims in a matter of days, without an easily comprehensible administrative record.”

We assume, without holding, that these page limits—enacted seven years after the FEIS process began—apply here. Regardless, the Lopez Plaintiffs’ claims are unlikely to succeed. Even if the Government violated the new page limit requirement, that violation did not “materially impede[] NEPA’s goals” and was therefore harmless error. *Friends of the Inyo v. United States Forest Serv.*, 103 F.4th 543, 557 (9th Cir. 2024) (internal quotation marks omitted). Though the FEIS’s length may have made it more difficult for affected parties and the public at large to digest, it was the result of a decades-long process involving countless stakeholders, comments, and analyses. As evidenced by the various other NEPA claims Plaintiffs collectively raise in the instant case, not even at its current length does the FEIS satisfy all those parties. Where NEPA’s goal is ultimately “to inform agency decisionmaking,” *Seven Cnty.*, 605 U.S. at 173, a too-thorough analysis of a highly controversial, complicated project can hardly be said to conflict with that goal. The agency here made a reasonable judgment about the level of detail to include, balancing the need to manage the FEIS’s length with the need to adequately address the various issues. That decision is afforded “substantial deference,” and courts “should not micromanage those agency choices.” *Id.* at 183. The Lopez Plaintiffs’ page limit requirement argument is therefore unlikely to succeed on the merits.

**c. The Tribe and Lopez Plaintiffs are not likely to succeed on, nor have they raised serious questions regarding, their consultation claims.**

The Tribe and Lopez Plaintiffs argue that the Government has failed to satisfy its consultation obligations under the Land Exchange Act and the NHPA. They are not likely to succeed on either point.

The Land Exchange Act sets out general requirements for the Government’s consultation with impacted Native groups. Specifically, the Government must “engage in government-to-government consultation with affected Indian tribes concerning issues of concern to the affected Indian tribes related to the land exchange.” 16 U.S.C. § 539p(c)(3)(A). Then the Government must “consult with Resolution Copper and seek to find mutually acceptable measures to” both “address the concerns of the affected Indian tribes” and “minimize the adverse effects on the affected Indian tribes resulting from mining and related activities on the Federal land conveyed to Resolution Copper.” *Id.* § 539p(C)(3)(B).

Section 106 of the NHPA, a more general consultation statute, similarly requires the federal government to “take into account the effect of” any government “undertaking on any historic property” and “afford the [Advisory Council on Historic Preservation (ACHP)] a reasonable opportunity to comment.” 54 U.S.C. § 306108. Pursuant to the Section 106 process, the federal government “must make *a reasonable and good faith effort* to identify historic properties . . . 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.” *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800, 805 (9th Cir. 1999) (emphasis added) (citations omitted); *see id.* (describing Section 106 as a “stop, look, and listen” provision).

The Tribe argues that when the Government withdrew the original 2021 EIS to undertake further consultation with impacted Native groups, that was “an admission that, through March 2021, Federal Defendants had not satisfied” their consultation obligations under the Land Exchange Act. And in their view, the Government has done nothing to remedy that failure in the interim; the Tribe requested, but has not received, written responses to various documents and a draft memorandum of understanding (MOU) was never finalized. To the Tribe, any pre-2021 consultation efforts by the parties are not relevant in determining whether the Government has today satisfied its consultation obligations. Nor, the Tribe argues, do letters and emails sent while “the Forest Service, at the very same time, was negotiating a MOU to govern a future consultation” satisfy the Government’s consultation obligations.

The Lopez Plaintiffs similarly argue that the Government failed to satisfy its Section 106 obligations by failing to negotiate a “programmatic agreement” with the ACHP to mitigate adverse impacts on the historic properties at issue here. When the

ACHP instead terminated the consultation process, they assert, the Government was required to respond in writing to the ACHP's final recommendations. The Government's written response, in the Lopez Plaintiffs' view, was inadequate under Section 106 because it failed to give "genuine attention" to those recommendations. *See Concerned Citizens All., Inc. v. Slater*, 176 F.3d 686, 696 (3d Cir. 1999).

We find neither argument compelling. At bottom, both the Land Exchange Act's consultation provisions and Section 106 are procedural statutes like NEPA—in other words, they do not mandate any particular substantive outcome from the consultation process. *See Muckleshoot*, 177 F.3d at 805. Therefore, the Tribe and Lopez Plaintiffs cannot use these provisions to attack the ultimate outcome of the consultation process here.

What remains, then, is whether the Government's actions were "arbitrary and capricious" under the Land Exchange Act and Section 106. As the district court correctly explained, they were not. Over the course of two decades, the Government engaged in thorough consultation with the Tribe, both electronically and in person. The Tribe's attempt to discount the pre-2021 consultation efforts fails because it fails to explain how that earlier portion of the consultation process was at all deficient or irrelevant. This includes failing to cite any case law standing for the idea that re-opening a consultation process negates all pre-reopening consultation efforts. The Tribe's arguments amount to a disagreement with how the Government engaged in

consultation, including a belief that the consultation was not sufficiently substantive. But the record evinces a thorough consultation process that ultimately resulted in a conclusion contrary to the Tribe's hopes. That is not enough to render the consultation process "arbitrary and capricious."

The same holds true for the Section 106 consultation requirements. The Lopez Plaintiffs argue that the Government ignored the ACHP's recommendation "to assess alternative mining techniques" or "incentivize the consideration of those alternatives." But the Government's response letter explained that "[the Land Exchange Act] limits the authority the USDA will have over most elements of the proposed Resolution Copper Mine (RCM) because once the land is exchanged, the project will be almost entirely on private land." And it further elaborated in the FEIS that "[m]ining operations within the area conveyed by the Forest Service in the exchange are not subject to regulation by the Forest Service, since Forest Service regulation of mining operations pertains only to mining operations conducted on NFS land under the jurisdiction of the Secretary of Agriculture." The FEIS also analyzed the these proposed alternative mining techniques and dismissed them as "not appropriate for a deposit like the Resolution Copper deposit." These written materials, taken together, evince the agency's good faith effort to address possible mitigation and "demonstrate that it has read and considered" the ACHP's

recommendations. *Concerned Citizens All., Inc. v. Slater*, 176 F.3d 686, 696 (3d Cir. 1999).

Because the Government adequately fulfilled its consultation obligations under the Land Exchange Act, Plaintiffs have failed to demonstrate a likelihood of success on the merits for their consultation claims.

**d. The Lopez Plaintiffs are not likely to succeed on, nor have they raised serious questions regarding, their religious liberty claims because they are foreclosed by precedent.**

The Lopez Plaintiffs argue that the land exchange here would violate their religious liberty, as protected by RFRA and the Free Exercise Clause. RFRA bars the federal government from “substantially burden[ing] a person’s exercise of religion” unless that burden satisfies strict scrutiny. 42 U.S.C. § 2000bb-1(a)–(b). And the Free Exercise Clause protects parental rights surrounding their children’s religious upbringing, and more generally requires “any government action that burdens religion” to “survive strict scrutiny unless it qualifies as a ‘neutral law of general applicability.’” *Emp. Div. v. Smith*, 494 U.S. 872, 879 (1990).

But this court foreclosed these arguments in *Apache Stronghold v. United States*. See 101 F.4th at 1044, 1051–52, 1063. The en banc court explained that pursuant to the Supreme Court’s decision in *Lyng v. Northwest Indian Cemetery Protective Association*, 485 U.S. 439 (1988):

[A] disposition of government real property is not subject to strict scrutiny when it has “no tendency to coerce individuals into acting

contrary to their religious beliefs,” does not “discriminate” against religious adherents, does not “penalize” them, and does not deny them “an equal share of the rights, benefits, and privileges enjoyed by other citizens.”

*Apache Stronghold*, 101 F.4th at 1055 (quoting *Lyng*, 485 U.S. at 449–50, 453). The *Apache Stronghold* court held that the land transfer under the Land Exchange Act here was “indistinguishable from that in *Lyng*,” and therefore was not subject to strict scrutiny under either the Free Exercise Clause or RFRA. *Id.* at 1051–52, 1056. Though the Lopez Plaintiffs detail their disagreement with the en banc court, we remain bound by the en banc court’s decision. *See McBurnie v. RAC Acceptance E., LLC*, 95 F.4th 1188, 1193 (9th Cir. 2024).

Recognizing this, the Lopez Plaintiffs seek refuge in the limited exception to that rule, where en banc review is not required if “intervening Supreme Court authority is clearly irreconcilable with our prior circuit authority.” *Id.* (internal quotation marks omitted). They argue that the Supreme Court’s decision in *Mahmoud v. Taylor*, 606 U.S. 522 (2025), abrogated *Apache Stronghold* by clarifying the meaning of a “religious burden.” In their view, *Mahmoud* stands for the proposition that the court must determine if “looking to ‘the specific religious beliefs and practices asserted,’ the challenged government actions pose an ‘objective danger,’ or ‘very real threat’ to the claimant’s religious exercise, thus ‘substantially interfer[ing]’ with it.” *See Mahmoud*, 606 U.S. at 549–50, 553 (internal quotation marks omitted). By contrast, the Lopez Plaintiffs argue, the *Apache Stronghold*

majority rejected an inquiry into the relative objective or subjective nature of an asserted interference with religious practice in favor of an inquiry focused on coercion.

But this view of *Mahmoud* does not survive scrutiny. As an initial matter, the Supreme Court itself declined to rehear its denial of certiorari in *Apache Stronghold* in light of *Mahmoud*. See *Apache Stronghold v. United States*, 2025 WL 2824572 (U.S. Oct. 6, 2025). Regardless, the Lopez Plaintiffs misrepresent the thrust of *Mahmoud* by selectively quoting from it. Their focus on the “objective danger” language ignores that *Mahmoud* centers on (1) the education context and (2) policies that directly coerce or indirectly compel behavior at odds with individual religious beliefs or practices, not involving the disposition of government property. *Mahmoud*, 606 U.S. at 546–50.

*Mahmoud* highlights the risk of “impos[ing] upon children a set of values and beliefs that are ‘hostile’ to their parents’ religious beliefs.” *Id.* at 553–54 (quoting *Wisconsin v. Yoder*, 406 U.S. 205, 211 (1972)). But risks of these kinds, the Court explained, are different in nature for Free Exercise purposes than those in *Lyng*, which involved “incidental interference with an individual’s spiritual activities,” as opposed to coercion. *Id.* at 557 (quoting *Lyng*, 485 U.S. at 450). Because *Apache Stronghold* involved neither education nor an attempt by the government to affirmatively coerce or indirectly compel behavior at odds with the plaintiffs’

religious beliefs, it is not “clearly irreconcilable” with *Mahmoud*. *Apache Stronghold* therefore bars the Lopez Plaintiffs’ identical claims here.<sup>4</sup>

### III. Other Injunction Factors

Because Plaintiffs have failed to show a likelihood of success on, or even serious questions regarding, any of their claims, we need not reach the other injunction factors. We nonetheless recognize that this land transfer will fundamentally alter the nature of the land, including destruction of those sites sacred to the Tribe, the Lopez Plaintiffs, and similarly situated Native individuals. Despite those grave harms to Native religious practice, Congress has chosen to transfer this land, and Plaintiffs have not raised any viable challenges to that decision.

### CONCLUSION

Because Plaintiffs’ claims are unlikely to succeed on the merits, we **AFFIRM** the district court’s denial of Plaintiffs’ request for a preliminary injunction against the land exchange and **DENY AS MOOT** their request for an injunction pending appeal, Dkt. 12. The administrative stay currently in effect, Dkt. 19, is **DISSOLVED**.<sup>5</sup>

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<sup>4</sup> Perhaps understanding this, the Lopez Plaintiffs also offer a version of their religious liberty arguments cast in parental-rights language. But there is no “coercive interaction[]” here “between the State and its young residents.” *Mahmoud*, 606 U.S. at 557.

<sup>5</sup> The motion for leave to file an amicus brief, Dkt. 44, is **GRANTED**. The motions to file oversized briefs, Dkts. 6, 9, 17, 136, & 139, are **GRANTED**. The motions to

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dissolve the administrative stay, Dkts. 83 & 84; motions for an extension of time, Dkts. 90 & 91; and motions to expedite, Dkts. 164 & 166, are **DENIED AS MOOT**.