Nez Perce

TRIBAL EXECUTIVE COMMITTEE
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October 21, 2024

Submitted electronically via portal:
https://cara.fs2c.usda.gov/Public//CommentInput?Project=50516

Kelly Orr, Objection Reviewing Officer
Stibnite Gold Project
USFS Intermountain Regional Office
324 25th Street, Room 4403
Ogden, UT 84401

Re: Nez Perce Tribe's Objection to the Stibnite Gold Project Final Environmental Impact Statement and Draft Record of Decision

Dear Objection Reviewing Officer Orr:

The Nez Perce Tribe ("Tribe") hereby objects to the U.S. Forest Service's Final Environmental Impact Statement ("FEIS") and Draft Record of Decision ("DROD") for the Stibnite Gold Project ("Project"). The Tribe's objections are captured in this transmittal letter and the appended document and attachments, all of which are based on prior submitted comments and other information generated between the Tribe and United States during government-to-government interactions and communications, prior to the Forest Service's publication of a draft decision for the Project.

The Tribe's objections are organized around major Project deficiencies. The Tribe believes the Project, as currently designed, is foundationally flawed: It violates the Tribe's treaty-reserved rights within the Project site and fails to adequately mitigate the Project's staggering human and environmental impacts, including to the Tribe's treaty-reserved natural resources within the Project site. As a result, approving the Project will violate the Tribe's treaty—an action for which the Forest Service lacks legal authority.

The Forest Service's current proposal to approve the Project appears based on a gross misreading of the 1872 Mining Law. Contrary to the agency's apparent approach to the Project, the 1872 Mining Law neither confers on mining operators inviolate rights that supersede other federal laws nor prevents the Forest Service from denying a project if the project fails to comply with other

federal law. The statute expressly prohibits mining activities on federal public lands that are inconsistent with other laws of the United States—including the Tribe's 1855 and 1863 treaties,[1] which were signed and ratified before the 1872 Mining Law and which reserved to the Tribe property rights in the Project area that are protected under the Fifth Amendment.

As the Forest Service is aware, the Project is located entirely within the homeland of the Nez Perce people, the *Nimíipuu*, and within the Tribe's area of exclusive use and occupancy, as adjudicated by the Indian Claims Commission.[2] On June 11, 1855, the United States entered into a treaty with the Tribe ("1855 Treaty").[3] In the 1855 Treaty, the Tribe reserved and the United States secured to the Tribe sovereign rights that the *Nimíipuu* have exercised since time immemorial, including the right to take fish at all usual and accustomed places and the rights to hunt, gather, pasture, and travel. The Tribe again reserved these sovereign rights in its 1863 Treaty with the United States.[4]

The Tribe's treaty-reserved legal rights flow from its status as the original inhabitants and stewards of the land and facilitate the Tribe's extensive and widely-recognized work as a co-manager and partner restoring salmon, steelhead, lamprey, wolves, and bighorn sheep throughout its aboriginal territory. This work includes the Tribe's active implementation of fish habitat restoration and hatchery actions in Salmon River Basin where the Project is located.

The Tribe's 1855 and 1863 treaties are and remain the supreme law of the land with their terms guaranteed under Article VI of the U.S. Constitution[5] and protected under the Constitution's Fifth Amendment.[6] The Forest Service, as an agency of the United States, therefore, has a legal duty, enshrined in the U.S. Constitution and affirmed by numerous U.S. Supreme Court decisions, to ensure that its actions, including the Project, uphold the rights the Tribe reserved, and the United States secured, over 160 years ago.

The Forest Service's own assessment is that the Project will result in major impacts to the Tribe's treaty-reserved rights and resources, prohibiting or restricting Tribal treaty access for a generation or longer and harming lands and waters on which our salmon, steelhead, and other important life sources depend. Although the Forest Service has required some mitigation measures, they are underdeveloped, speculative, and inadequate. The fact remains that approval of the Project would allow Perpetua to move a portion of the East Fork South Fork Salmon River underground for at least 12 years, preventing Nez Perce Tribal access to this Usual and Accustomed Fishing Place. This Project action alone would be a direct violation of the Tribe's treaty-reserved right to fish. As a result, the Forest Service, as a representative of the United States—a signatory to the 1855 and 1863 Treaties—simply lacks legal authority to authorize the Project.

Numerous Biden Administration executive orders, memoranda, and secretarial orders, and the Forest Service's own recently released action plan on strengthening tribal consultations, commit

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[1] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957; Treaty with the Nez Perces, June 9, 1863, 14 Stat. 647.
[2] *Nez Perce Tribe v. United States*, Docket # 175, 18 Ind. Cl. Comm. 1.
[3] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957.
[4] "[A]ll the provisions of [the treaty of June 11, 1855], which are not abrogated or specifically changed by any article herein contained, shall remain the same . . ." Treaty with the Nez Perces, June 9, 1863, 14 Stat. 647, art. VIII.
[5] U.S. CONST. art. VI, cl. 2.
[6] U.S. CONST. amend. V.; *Muckleshoot Indian Tribe v. Hall*, 698 F.Supp. 1504, 1510 (W.D. Wash. 1988).

to upholding tribal treaty rights and the nation-to-nation relationship. The Forest Service should therefore, without pause, faithfully and fully apply and uphold the terms of the 1855 and 1863 treaties when issuing a final decision for the Project. The Tribe believes that the Forest Service will remain in compliance with the Tribe's treaties and the 1872 Mining Law if it either selects the Project's no action alternative or withdraws its DROD for the Project.

The Tribe's treaties do not simply impose responsibilities on the United States. For the Nez Perce or *Nimíipuu*, the Tribe's reserved rights were and are inextricably linked to, and a guarantee of, the *Nimíipuu's* ability to preserve our culture and identity. Honoring our relationship to the fish and all animals and plants inhabiting the Tribe's cherished lands and waters of our homeland is fundamental to our identity and survival as *Nimíipuu*—and will always remain our sacred and privileged duty.

Sincerely,

Shannon F. Wheeler
Chairman

NEZ PERCE TRIBE'S OBJECTION TO THE U.S. FOREST SERVICES' FINAL ENVIRONMENTAL IMPACT STATEMENT AND DRAFT RECORD OF DECISION FOR THE STIBNITE GOLD PROJECT

October 21, 2024

The Nez Perce Tribe ("Tribe") hereby objects to the U.S. Forest Service's Draft Record of Decision ("DROD") and Final Environmental Impact Statement ("FEIS") for the Stibnite Gold Project ("Project") for the Payette National Forests ("Forest"). The Tribe requests an Objection resolution meeting or meetings in accordance with 36 C.F.R. § 218.11(a). The Project will result in substantial and lasting harm to the Tribe's treaty-reserved rights and resources within the Tribe's exclusive aboriginal homeland. The Responsible Officials are Matthew Davis, Payette National Forest Supervisor and Brant Peterson, Boise National Forest Supervisor and the Objection Reviewing Officer is Kelly Orr, Deputy Regional Forester.

Pursuant to 36 C.F.R. § 218.5(a) and (b), the Tribe is eligible to object to this Project. In compliance with 36 C.F.R. 218.8(d)(6), the Tribe has been extensively engaged in review of the Project since its inception, having committed thousands of hours and substantial resources to its evaluation. The Tribe reviewed, commented on, and litigated the exploration phases of this Project between February 2012 and January of 2016. Since June of 2017, Tribal staff have participated in monthly staff-to-staff meetings with the Forest Service regarding the proposed Project. The Tribe submitted Scoping comments to the Forest Service regarding the Project on July 20, 2017. On October 27, 2020, the Tribe submitted comments on the Forest Service's Draft Environmental Impact Statement and, on January 5, 2023, the Tribe submitted comments on the Forest Service's Supplemental Draft Environmental Impact Statement for the Project. The Nez Perce Tribal Executive Committee has consulted, government-to-government with the Payette and Boise National Forests regarding the Project on at least four occasions since 2017.

While the Tribe acknowledges that the Forest has made some changes to the Project as a result of the Tribe's engagement, the Forest has not made many of the substantive changes that the Tribe has consistently advocated for and believes are necessary to uphold the Tribe's treaty-reserved rights.

The Tribe has discussed all issues listed in this Objection in its formal comments, government-to-government consultations, and staff-to-staff meetings with the Forest as required by 36 C.F.R. § 218.5(a) and U.S. Forest Service policy.

In accordance with 36 C.F.R. § 218.8(d)(1), the Tribe's lead Objector's name, telephone number, email address, and mailing address are:

Shannon F. Wheeler
Chairman, Nez Perce Tribe
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ACRONYMS

AOP	aquatic organism passage
BMP	best management practices
DEIS	Draft Environmental Impact Statement
DFRM	Department of Fisheries Resource Management
DOI	Department of Interior
DROD	Draft Record of Decision
eDNA	environmental Deoxyribonucleic Acid
EFSFSR	East Fork South Fork Salmon River
EOR	Engineer of Record
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FDCP	Fugitive Dust Control Plan
FMCSA	Federal Motor Carrier Safety Administration
FEIS	Final Environmental Impact Statement
FSM	Forrest Service Manual
FR	Functioning at Risk
FUR	Functioning at Unacceptable Risk
IDEQ	Idaho Department of Environmental Quality
IDFG/IDF&G	Idaho Fish and Game
IDWR	Idaho Department of Water Resource
IP	intrinsic potential
JCAPE	Johnson Creek Artificial Propagation and Enhancement
MPG	major population group
NAAQS	National Ambient Air Quality Standards
NMFS	National Marine Fisheries Service
PHABSIM	Physical Habitat Simulation System
Project	Stibnite Gold Project
PTC	Permit to Construct
RGL	Regulatory guidance letter
SGP	Stibnite Gold Project
SDEIS	Supplemental Draft Environmental Impact Statement
SFSR	South Fork Salmon River
SPLNT	Stream Pit Lake Network Temperature
SRBA	Snake River Basin Adjudication
TOMS	Tailings, Operations, Maintenance and Surveillance manual
Tribe	Nez Perce Tribe
TSF	tailings storage facility
TDS	Total Dissolved Solids
U&A	usual and accustomed fishing place
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFS	United States Forest Service
USGS	United States Geological Survey

WCI	Watershed Condition Indicator
YPP	Yellow Pine Pit

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OBJECTIONS

1. Tribal Trust and Treaty Rights

1.1. Nez Perce Tribe's Reserved Legal Rights.

Since time immemorial, the Nez Perce Tribe ("Tribe") has occupied and used over 13 million acres of lands, including what are now north-central Idaho, southeast Washington, and northeast Oregon. Tribal members engaged in fishing, hunting, gathering, pasturing, and travel across this vast homeland and beyond. These activities still play a major role in the culture, religion, subsistence, and commerce of the Tribe.

In 1855, the Tribe negotiated a treaty with the United States ("1855 Treaty").[1] In its 1855 Treaty, the Tribe explicitly reserved, and the United States secured, among other guarantees, part of its sovereign homeland as well as "the right of taking fish at all usual and accustomed places in common with citizens of the Territory; and of erecting temporary buildings for curing, together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land" and the resources that sustain and enable the exercise of those rights.[2]

1.2. Nez Perce Tribe's Reserved Legal Rights Within the Project Site.

The Tribe's treaty-reserved rights to hunt, gather, and pasture on open and unclaimed land are well-established throughout its ceded territory.[3] Since the proposed Stibnite Gold Project is located entirely within the Nez Perce's ceded territory, also referred to as the Tribe's area of exclusive use and occupancy, the Tribe's rights to hunt, gather, and pasture on open and unclaimed land in and adjacent to the proposed Stibnite Gold Project ("SGP" or "Project") are well established.

The U.S. Congress established the Indian Claims Commission in 1946 to adjudicate Indian tribes' claims against the United States for, among other issues, compensation for the taking of aboriginal lands by the United States without fair payment. The Indian Claims Commission required that compensable aboriginal land title be based on "actual exclusive and continuous use and occupancy 'for a long time' prior to the cession, transfer, or loss of the property."[4] In its 1967 decision regarding the Nez Perce's territory, the Indian Claims Commission made comprehensive findings regarding the Nez Perce's claim for unconscionable compensation for land ceded to the United States in the 1855 Treaty. The Indian Claims Commission's comprehensive findings in its decision were based on detailed anthropological evidence from both the United States and the Tribe regarding the Tribe's area of "exclusive use and occupancy" and "aboriginal ownership" as opposed to that of any other Indian tribes. The Indian Claims Commission's decision found that

[1] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957.
[2] *Id*. at art. 3.
[3] *See e.g. State v. Arthur*, 74 251, 265 (Idaho 1953) ("the rights reserved by the Nez Perce Indians in 1855, which have never passed from them, to hunt upon open and unclaimed land still exist unimpaired and that they are entitled to hunt at any time of the year in any of the lands ceded to the federal government though such lands are outside the boundary of their reservation").
[4] *Nez Perce Tribe v. United States*, Docket #175, 18 Ind. Cl. Comm. 1 at 128.

the Tribe had ceded, among other areas, the entire area encompassing the Project and effected South Fork Salmon River ("SFSR") watershed. Given this decision, the Tribe has an exclusive, treaty-reserved right to hunt, gather, and pasture within the Project site.[5]

The Tribe's treaty-reserved right to fish at all its usual and accustomed fishing places ("U&A") is also well established. Federal case law and administrative precedent state that the Tribe's right to fish at its U&As is a permanent right that includes the right to cross and fish on private property as necessary to exercise the right.[6]

As the Forest Service has acknowledged in the Final Supplemental Environmental Impact Statement ("FEIS") for the Project, the existence of Nez Perce U&As within the Project site is supported by Nez Perce elder affidavits filed in the Snake River Basin Adjudication ("SRBA").[7] These affidavits show documented Nez Perce U&A fishing places within what is now the Project site.

1.3. Forest Service's Treaty and Trust Responsibilities to the Nez Perce Tribe.

The Tribe's 1855 Treaty, as well as its subsequent treaties, are enshrined in the supremacy clause of the U.S. Constitution as the "supreme Law of the Land" to which "all executive officers…of the United States shall be bound by oath or affirmation, to support…"[8] As a result, federal agencies have a contractual and Constitutional legal duty as a signatory to the Tribe's treaties to ensure that its actions uphold the rights and natural resources the Tribe reserved. The United States also holds a separate trust obligation to protect the Tribe's treaty-reserved rights and resources.[9]

As the Tribe has consistently emphasized throughout the SGP permitting process, the United States has foundational obligations pursuant to its treaty with the Tribe: the United States has an obligation to protect the Tribe's ability to access the Forest to exercise its treaty-reserved rights as well as an obligation to protect and ensure the viability and availability of the underlying natural resources on the Forest at healthy and harvestable levels to ensure that the exercise of the Tribe's treaty-reserved rights is possible. These federal legal obligations to the Tribe under treaty are primary; they are in addition to the United States' trust responsibilities to the Tribe and are independent of the Forest's other statutory and regulatory obligations.

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[5] No federal court has ever altered the Indian Claims Commission's findings of fact and conclusions of law for the Tribe, nor is there any legal or evidentiary support that would justify doing so.

[6] *United States v. Winans*, 198 U.S. 371 (1905), *Muckleshoot Indian Tribe v. Hall*, 698 F. Supp. 1504 (W.D. Wash. 1988), *Lummi Indian Nation v. Cunningham*, No. C92-1023 (W.D. Wash. 1992); *Nw. Sea Farms, Inc. v. Army Corps of Engineers*, 931 F. Supp. 1515 (W.D. Wash. 1996); and Memorandum for Record, Gateway Pacific Terminal Project and Lummi Nation's Usual and Accustomed Treaty Fishing Rights at Cherry Point, Whatcom County, Pacific International Holdings, LLC, NWS-2008-260 (U.S. Army Corps of Engineers, May 9, 2016) ("Cherry Point" decision), among other cases, have prevented interference with tribal member use of U&As.

[7] USFS Stibnite Gold Project Tribal Rights and Interests Specialist Report, December 2023, section 6.1.1 at 22-23.

[8] U.S. Const., Art. VI, cl. 2-3.

[9] *See generally* Cohen's Handbook of Federal Indian Law§ 5.04[3] (Nell Jessup Newton ed., 2012); *Seminole Nation*, 316 U.S. at 296-97.

As fiduciary, the United States and all its agencies owe a trust duty to federally-recognized Indian tribes to protect their resources.[10] This trust relationship has been described as "one of the primary cornerstones of Indian law,"[11] and has been compared to the relationship existing under the common law of trusts, with the United States as trustee, the tribes as beneficiaries, and the property and natural resources managed by the United States as the trust corpus.[12] All executive agencies of the United States are subject to the federal trust responsibility to recognize and uphold treaty-reserved rights. Executive agencies must also protect the habitats and resources on which those rights rest, as the right to take fish and other resources reserved by the Tribe presumes the continued existence of the biological conditions necessary to support the treaty-reserved resources.[13]

The U.S. Department of Agriculture's ("USDA") Departmental Regulation on Tribal Consultation, Coordination, and Collaboration states that "USDA agencies shall respect Indian tribal self-government and sovereignty, honor tribal treaty and other rights, and meet the responsibilities that arise from the unique legal relationship between the Federal Government and Tribal governments."[14]

Forest Service Manual ("FSM") 1563.8b specifically states that the Forest Service "shall administer lands subject to off-reservation treaty rights in a manner that protects Indian tribes' rights and interests in the resources reserved under treaty."[15] Further, FSM 1563.03 directs the Forest Service, among other responsibilities, to "[i]mplement Forest Service programs and activities consistent with and respecting Indian treaty and other reserved rights and fulfilling the Federal Government's legally mandated trust responsibilities with Indian Tribes."[16]

1.4. Forest Service Cannot Approve a Project That Will Violate the Tribe's Treaties.

The United States, as a signatory to the Tribe's 1855 Treaty, has a contractual duty to uphold the Tribe's treaty-reserved rights.[17] This obligation has also been interpreted to impose a fiduciary duty on the United States when conducting "any Federal government action" that relates to Indian

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[10] *See United States v. Cherokee Nation of Oklahoma*, 480 U.S. 700, 707 (1987); *United States v. Mitchell*, 463 U.S. 206, 225 (1983); *Seminole Nation v. United States*, 316 U.S. 286, 296-97 (1942).

[11] Felix Cohen, Handbook of Federal Indian Law 221 (1982).

[12] *See, e.g., Mitchell*, 463 U.S. at 225.

[13] *See Kittitas Reclamation Dist. v. Sunnyside Valley Irrigation Dist.*, 763 F.2d 1032 (9th Cir. 1985), cert. denied, *Sunnyside Valley Irrigation Dist. v. United States*, 474 U.S. 1032 (1985).

[14] U.S. Department of Agriculture, *Departmental Regulation Number 1350-002: Tribal Consultation, Coordination, and Collaboration* (Jan. 18,2013), https://www.usda.gov/sites/default/files/documents/USDA_DR_Tribal_Consultation_Coordination_and_Collaboration_OTR_final_1_18.pdf.

[15] FSM, Ch. 1560, at 67.

[16] *Id.* at 30.

[17] *E.g., Seminole Nation*, 316 U.S. at 296–97 ("In carrying out its treaty obligations with the Indian tribes the Government is something more than a mere contracting party. Under a humane and self imposed policy which has found expression in many acts of Congress and numerous decisions of this Court, it has charged itself with moral obligations of the highest responsibility and trust. Its conduct, as disclosed in the acts of those who represent it in dealings with the Indians, should therefore be judged by the most exacting fiduciary standards.").

tribes.[18] The Forest Service, as an agency of the United States, carries these duties—to ensure its actions are consistent with the Tribe's treaty.[19] The Forest Service, as an agency of the executive branch, does not have the authority to make permitting decisions that will alter or violate treaty rights.[20]

1.4.1. Objection: Failure to include in the DROD, Part 7, titled "Legally Required Findings," the Nez Perce Tribe's 1855 and 1863 Treaties with the United States.

1.4.1.1. Issue

Part 7 of the DROD, titled "Legally Required Findings" "lists the laws and regulations that were considered during the decision-making process."[21] The section lists twenty federal statutes, regulations, and executive orders with which the Forest Service's DROD and FEIS for the Project are legally obligated to comply. This section does not list the United States' 1855 and 1863 Treaties with the Nez Perce Tribe, however.[22] This omission is indefensible.

Under article VI, clause 2 of the U.S. Constitution, treaties—including the United States' treaties with Indian tribes—are the supreme law of the land.[23] The Treaty of 1855 is, therefore, federal law, requiring every Forest Service official, as an agent and representative of the United States, to uphold it.

Today, the Nez Perce or *Nimíipuu* exercise these treaty-reserved legal rights, both on and off-reservation, including on millions of acres of ancestral lands that are now National Forest System lands. The Project area is located within the homeland of the Nez Perce people, the *Nimíipuu*, and within the Tribe's area of exclusive use and occupancy, as adjudicated by the Indian Claims Commission.[24] Therefore, the Project area is subject to the Tribe's treaty-reserved rights and the Forest Service has a legal obligation to ensure that all Project-related documents and decisions comply with the 1855 Treaty. The Forest Service must explicitly acknowledge this obligation in its Record of Decision for the Project.

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[18] *Nance v. E.P.A.*, 645 F.2d 701, 711 (9th Cir.), *cert. denied*, 454 U.S. 1081 (1981); *Mitchell*, 463 U.S. at 225 (recognizing "the undisputed existence of a general trust relationship between the United States and the Indian people.").

[19] Department of Defense Instruction 4710.02 DOD Interactions with Federally Recognized Tribes, Section 3, (Sept. 24, 2018), https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/471002p.pdf; Memorandum of Understanding Regarding Interagency Coordination and Collaboration for the Protection of Tribal Treaty And Reserved Rights (November 2021), https://www.epa.gov/sites/default/files/2017-02/documents/mou_treat_rights_12-01-16_final.pdf ("Under the U.S. Constitution, treaties are part of the supreme law of the land, with the same legal force and effect as federal statutes. Pursuant to this principle, and its trust relationship with federally recognized tribes, the United States has an obligation to honor the rights reserved through treaties, including rights to both on and, where applicable, off-reservation resources, and to ensure that its actions are consistent with those rights and their attendant protections").

[20] *Muckleshoot Indian Tribe*, 698 F. Supp. at 1511 ("The right to take fish at all usual and accustomed fishing places may not be abrogated without specific and express Congressional authority.").

[21] DROD at 1.

[22] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957.

[23] *Worcester v. Georgia*, 31 U.S. (6 Peters) 515 (1832).

[24] *Nez Perce Tribe v. United States*, Docket #175, 18 Ind. Cl. Comm. 1.

The Forest Service previously listed both the United States's 1855 and 1863 treaties with the Tribe in the "Relevant Laws, Regulations, and Policy" sections of both the Supplemental Draft Environmental Impact Statement ("SDEIS") for the Project[25] and in the FEIS's Stibnite Gold Project Tribal Rights and Interests Specialist Report.[26] The Specialist Report also states that "Forest Service Manual 1563 directs the Forest Service to implement programs and activities consistent with and respecting tribal rights and to fulfill legally mandated trust responsibilities to the extent they are determined applicable to NFS lands."[27] The Specialist Report then quotes Forest Service Manual 1500, Chapter 1560:

> *Those rights or interests reserved in treaties for the use and benefit of Tribes. The nature and extent of treaty rights are defined in each treaty. Only Congress may abolish or modify treaties or treaty rights*. Trust Responsibilities arise from the U.S.'s unique legal and political relationship with Indian tribes. It derives from the Federal Government's consistent promise in the treaties that it signed, to protect the safety and well-being of the Indian tribes and tribal members. The federal trust responsibility is a legally enforceable fiduciary obligation on the part of the U.S. to carry out the mandates of federal law with respect to all federally recognized American Indian and Alaska Native tribes and villages (Forest Service 2016a:51).[28]

1.4.1.2. Suggested Remedies

List the Treaties of 1855 and 1863 between the Tribe and the United States in Part 7, "Legally Required Findings" of the DROD as federal law the Forest Service is responsible for complying with in its DROD and FEIS for the Project.

1.4.1.3. Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. That said, in every letter and official communication with the Payette National Forest regarding the Stibnite Gold Project, the Tribe has emphasized its legally-reserved rights under its 1855 and 1863 treaties with the United States. For instance, in its January 5, 2023, public comments on the Stibnite Gold Project Draft Environmental Impact Statement, the Tribe included in its cover letter the following passage:

> In the 1855 Treaty, the Tribe reserved and the United States secured to the Tribe sovereign rights that the Nimiipuu have exercised since

[25] USFS, Stibnite Gold Project Supplemental Draft Environmental Impact Statement ("SDEIS"), section 3.24.3 at 3-500.
[26] USFS Stibnite Gold Project Tribal Rights and Interests Specialist Report ("Tribal Rights and Interests Specialist Report"), December 2023, section 3.1.1 at 13.
[27] *Id.* at section 3.2 at 14.
[28] *Id*. (emphasis added).

> time immemorial, including the right to take fish at all usual and accustomed places, and the rights to hunt, gather, pasture, and travel. These rights do not simply impose responsibilities on the United States. For the Nimiipuu, these rights were and are inextricably linked to, and a guarantee of, our ability to preserve our culture and identity….The Tribe's reserved rights are also the "supreme Law of the Land." As an agency of the United States, the Forest Service has a legal duty, enshrined in the Supremacy Clause of the U.S Constitution and supported by numerous U.S. Supreme Court Decisions, to ensure that its actions, including the Project, do not result in harm to the rights the Tribe reserved, and the United States secured, over 160 years ago.[29]
>
> …
>
> On November 30, 2022, the White House issued a Presidential Memorandum on Uniform Standards for Tribal Consultation. That Presidential Memorandum builds on President Biden's January 26, 2021, Presidential Memorandum acknowledging foundational principles underlying the Nation-to-Nation relationship with tribes and reaffirming the United States' commitment to uphold treaty and trust responsibilities. The White House, in coordination with 17 federal agencies, including the United States Department of Agriculture ("USDA"), also released a new best practices report to integrate tribal treaty and reserved rights into agency decision-making processes. This report was developed in consultation with Tribal Nations and implements the agencies' Memorandum of Understanding Regarding Interagency Coordination and Collaboration for the Protection of Tribal Treaty Rights and Reserved Rights. An essential point raised by tribes in this report is that "*[f]ederal agencies must give effect to treaty rights and should seek to safeguard them as agencies contemplate action," and "ensure that agency actions do not impair Tribes' ability to exercise those rights*." The report complements Secretarial Order 3403: Joint Secretarial Order on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters issued by USDA and the Department of Interior ("DOI") on November 15, 2021. The Joint Secretarial Order commits to ensuring that USDA and DOI and their component bureaus and offices are managing federal lands and waters in a manner that seeks to protect the treaty, religious, subsistence, and cultural interests of tribes.[30]

In the body of its January 5, 2023, comments, the Tribe also wrote:

[29] Nez Perce Tribe January 5, 2023, comments on the Stibnite Gold Project Supplemental Draft Environmental Impact Statement ("NPT SDEIS Comments") at 1-2.
[30] NPT SDEIS Comments at 3-4 (internal citations omitted) .

> As part of the purpose and need, the SDEIS identifies as one of the needs to "[e]nsure that the proposed occupancy and use of NFS lands is consistent with statutory and regulatory requirements." The 1855 Treaty, as the Supreme Law of the Land under the United States Constitution, is identified in the SDEIS as an applicable federal law to which compliance is required to meet the Project's purpose. The Forest must develop and include in the SDEIS all reasonable alternatives that protect Nez Perce treaty rights and resources. In fact, [neither] the Proposed Action and neither alternative in the SDEIS fulfill these requirements.[31]

1.4.2. Objection: Failure to make findings in Part 7 of the DROD, titled "Legally Required Findings," regarding whether and how the Forest Service's decision for the Project, including the Forest Service's analysis and disclosure of impacts to the Tribe's reserved rights and resources in the FEIS, comply with the Forest Service's legal obligations under the United States' 1855 and 1863 treaties with the Tribe.

1.4.2.1. Issue

Part 7 of the DROD, titled "Legally Required Findings" "lists the laws and regulations that were considered during the decision-making process"[32] and explains, for each legal obligation, whether and how its decision documents for the Project do comply. The Forest Service previously listed both the United States's 1855 and 1863 treaties with the Tribe in the "Relevant Laws, Regulations, and Policy" sections of both the SDEIS for the Project[33] and in the FEIS's Stibnite Gold Project Tribal Rights and Interests Specialist Report.[34] The Forest Service, however, failed to list the 1855 and 1863 Treaties in Part 7 of the DROD, titled "Legally Required Findings."

The United States's 1855 Treaty with the United States is a federal law that applies within the Project area. At the Walla Walla Treaty Council, where the 1855 Treaty was negotiated, the United States promised the Tribe that Nez Perce would "be allowed to go to the usual fishing places and fish in common with the whites, and to get roots and berries and to kill game on land not occupied by the whites; all this outside the Reservation."[35] Governor Stevens, who represented the United States, directly told Nez Perce leader Looking Glass that he would be able to "catch fish at any of the fishing stations, that he can kill game and can go to Buffalo when he pleases, that he can get roots and berries on any of the lands not occupied by settlers."[36] Tribal leaders, for their part,

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[31] NPT SDEIS Comments at 12 (footnotes omitted).
[32] DROD at 1.
[33] SDEIS, section 3.24.3 at 3-500.
[34] Tribal Rights and Interests Specialist Report, section 3.1.1 at 13.
[35] U.S. Department of Interior, Bureau of Indian Affairs, Certified Copy of the Original Minutes of the Official Proceedings at the Council in Walla Walla Valley, Which Culminated in the Stevens Treaty of 1855, Portland, Oregon: Bureau of Indian Affairs, 1953 (copy of original minutes on file in the National Archives) https://www.lib.uidaho.edu/mcbeth/governmentdoc/1855council.htm ("1855 Treaty Council Minutes").
[36] 1855 Treaty Council Minutes.

emphasized to the United States' negotiators, the importance of the United States adhering to its treaty promises.[37]

On June 11, 1855, the Tribe and the United States signed the treaty. Through this legal act, the Tribe reserved, and the United States secured to the Tribe, sovereign rights that the Nimíipuu have exercised since time immemorial, including the right to take fish at all usual and accustomed places ("U&A"), and the rights to hunt, gather, pasture, and travel throughout its aboriginal use area. In exchange for these reservations and other terms, the Tribe ceded, and the United States and its citizens acquired, title to millions of acres of Nez Perce aboriginal land.[38] In the United States' 1863 Treaty with the Tribe, the Tribe again reserved the right to take fish at all U&As, and the rights to hunt, gather, pasture, and travel throughout its aboriginal use area.[39]

The Tribe's treaty-reserved right to fish at all its U&A fishing places is well established. Federal case law and administrative precedent state that the Tribe's right to fish at its U&A fishing places is a property right—protected under the U.S. Constitution's fifth amendment[40]—that includes the right to cross and fish on private property to exercise the right.[41] The Tribe's treaty-reserved fishing right also includes the right of "erecting temporary structures for curing," which the Ninth Circuit has held may include "year-round dwellings."[42]

Well-established case law also affirms that only Congress has the power to alter or abrogate the terms of a treaty.[43] In *United States v. Dion*, the Supreme Court considered whether Congress had abrogated a treaty-reserved right to hunt bald and golden eagles when it enacted the Bald and Gold Eagle Protection Act. The Supreme Court noted that to ensure that treaty rights are not "easily cast aside," "Congress' intention to abrogate Indian treaty rights [must] be clear and plain" and "[a]bsent explicit statutory language, [courts] have been extremely reluctant to find congressional abrogation of treaty rights."[44] To abrogate tribal treaty rights, the Supreme Court affirmed: "[w]hat is essential is clear evidence that Congress actually considered the conflict between its intended action on the one hand and Indian treaty rights on the other, and chose to resolve that conflict by abrogating the treaty."[45]

1.4.2.2. Suggested Remedies

[37] Affidavit of Dennis C. Colson, Exhibit 1 at 42; Attachment 11.

[38] Treaty with the Nez Perces, art. 1, June 11, 1855, 12 Stat. 957. Congress ratified the 1855 Treaty in 1859.

[39] Treaty with the Nez Perces, June 9, 1863, 14 Stat. 647, art. 8. ("[A]ll the provisions of [the treaty of June 11, 1855], which are not abrogated or specifically changed by any article herein contained, shall remain the same . . ."). Congress ratified the 1863 Treaty in 1867.

[40] *See e.g.*, *Menominee,* 391 U.S. at 411 n. 12, 412.

[41] *See* n.6, *supra*.

[42] *Sohappy v. Hodel*, 911 F.2d 1312, 1320 (9th Cir. 1990)("Faced with th[e] evidence of the Indians' understanding of the treaties and of the treaties' practical construction, we cannot agree…that the plain language of the treaties prohibited year-round dwellings. To the contrary, th[e] evidence tends to show that the parties to the treaties… intended to allow such structures").

[43] *Menominee*, 391 U.S. at 412-413.

[44] *United States v. Dion*, 476 U.S. 734, 738-739 (1986) (internal citations omitted).

[45] *Dion*, 476 U.S. at 739-740.

The Forest Service should reanalyze whether and how the Project complies with the United States' 1855 and 1863 treaties with the Tribe. The Forest Service should determine, as the Tribe has, that the Project is not in compliance with the treaties. If the Forest Service determines that the Project is in compliance with its legal obligations under the Treaties of 1855 and 1863, it should explain why and how in Part 7 of the ROD. If the Forest Service determines the Project is not in compliance with the 1855 and 1863 treaties, it should either select the no action alternative in the ROD or withdraw the DROD.

1.4.2.3. Prior Comments

This objection relates to an issue that arose after the designated opportunities for comments. In its January 5, 2023, comments on the SDEIS, however, the Tribe stated:

> As documented by the Forest in the SDEIS, and the Tribe's comments, the Project will prevent Tribal member access to usual and accustomed fishing places, hunting and gathering areas, and culturally significant places for twenty years or longer. It will also irreparably harm salmon, other treaty-reserved aquatic species, and essential fish and wildlife habitat as well as impact the Tribe's fish management restoration efforts in the East Fork South Fork Salmon River.[46]

In response to the Tribe's comment, the Forest Service stated: "Potential impacts to tribal treaty rights and interests have been disclosed in the SDEIS."[47] The Forest Service did not, however, explain in Part 7 of the DROD whether and how the Forest Service's decision complies with its legal obligations under the Tribe's 1855 and 1863 Treaties with the United States.

1.4.3. Objection: Failure to explain in the DROD how the mitigation measures identified in section 2.3.12, titled "Tribal Treaty Rights and Interests," ensure compliance with the United States' 1855 and 1863 treaties with the Tribe.

1.4.3.1. Issue

The Forest Service failed to make any findings in Part 7 of the DROD, titled "Legally Required Findings," regarding whether and how the Project's specific impacts to the Tribe's Treaty-reserved rights and resources analyzed and disclosed in the FEIS are in compliance with the Forest Service's legal obligations under the United States' 1855 and 1863 treaties with the Tribe. As an extension of this issue, the Forest Service also failed to explain whether and how the mitigation measures it proposes in section 2.3.12 of the DROD, titled "Tribal Treaty Rights and Interests," ensure the United States' compliance with the 1855 and 1863 treaties.

1.4.3.2. Suggested Remedies

[46] FEIS App. B at B-651.
[47] FEIS App. B at B-651.

The Forest Service should explain in the ROD whether and why the Forest Service's proposed mitigation measures in section 2.3.12 of the DROD ensure compliance with the Forest Service's legal obligations under the 1855 and 1863 treaties, as reflected in case law, by addressing the impacts disclosed and analyzed in the FEIS. If the Forest Service cannot explain whether and why its proposed mitigation measures in section 2.3.12 of the DROD ensure compliance with the 1855 and 1863 treaties, it should select the no action alternative in the ROD or withdraw the DROD.

1.4.3.3. Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. This is the Tribe's first opportunity to review the language in the Forest's DROD. For more detail see the Tribe's explanation provided in 2.2.1 of this section.

1.4.4. Objection: The Forest Service's "Tribal access plan" mitigation measure fails to ensure legally-protected access to, and use of, the Tribe's U&A fishing places within the Project site.

1.4.4.1. Issue

Section 2.3.12 of the DROD, titled "Tribal Treaty Rights and Interests," proscribes a "Tribal access plan"[48] mitigation measure to mitigate for the fact that "Project activities would restrict access to the Project Operations Area Boundary which could preclude tribal traditional activities within that area."[49] According to the mitigation measure:

> The Project Operator and the Federally-recognized Tribes with traditional use claims for the Operations Area Boundary will enter into a Tribal Access Plan to allow for continued access for tribal members while complying with safety rules and requirements put in place to protect the health and safety of workers and visitors to the Operations Area Boundary.

The Forest Service cannot ensure Project compliance in the DROD with the Tribe's treaty-reserved right to fish through an unwritten "Tribal access plan," especially when the Forest Service has failed to articulate in the DROD how it views its own legal obligations to ensure compliance with the Tribe's 1855 and 1863 treaties with the United States. An unwritten "Tribal access plan" cannot ensure that the Tribe's members will have continual access, throughout the life of the Project, to all and to each part, of the Tribe's U&As within the Project area—U&As that the Forest Service acknowledges exist in the FEIS on pages 3-542, 3-549, 3-551, and 3-557 and in the FEIS's Tribal Rights and Interests Specialist Report on pages 22-23, 30-31, and 36. Moreover, under the plain language of the 1855 Treaty, this continual fishing access includes the reserved right to erect temporary structures for curing fish, a right that would be impermissibly violated by access prohibitions and restrictions to some or all of the Operations Area Boundary.

[48] DROD at 29.
[49] DROD at 29.

The plan is not provided and the Forest Service's very brief description is speculative, offering a vague reference to "complying with safety rules and requirements" and implementing "[p]re-notification and communication procedures while tribal members are actively within the Operations Area Boundary."[50] The Forest Service's inadequate description makes it impossible for the Tribe to understand how the mitigation it is proposing would change the agency's own conclusion in the FEIS and DROD that the Project will restrict or prohibit Tribal access to some or all of the Operations Area Boundary for twenty years or more.[51] Moreover, the Forest Service lacks authority to require the Tribe to enter into a "Tribal access plan" with Perpetua as suggested in the "tribal access plan" mitigation measure.

1.4.4.2. Suggested Remedies

The Forest Service must include in the ROD language explicitly recognizing the United States' 1855 and 1863 treaties with the Tribe as binding legal authorities that impose on the Forest Service a legal obligation to ensure access to all and each part of the Tribe U&As throughout the life of the Project.

1.4.4.3. Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. This is the Tribe's first opportunity to review the language in the Forest's DROD.

1.4.5. Objection: Approval of the Project Will Violate the Tribe's Treaty-Reserved Right to Fish By Preventing Tribal Member Access to a Usual and Accustomed Fishing Place.

1.4.5.1. Issue

The EFSFSR and its tributaries, including the portions of each, which flow through the Project site, were, are, and will continue to be a Nez Perce Usual and Accustomed Fishing Place ("U&A"), reserved by the Tribe in its 1855 and 1863 treaties with the United States.[52] Approval of the Project would allow Perpetua to move portions of the East Fork South Fork Salmon River ("EFSFSR") and its tributaries underground.[53] Significantly, Perpetua plans to move approximately one mile of the EFSFSR underground for at least 12 years, preventing Nez Perce Tribal member access to, and use of, a portion of the Tribe's EFSFSR U&A. According to the FEIS:

> The tunnel would be designed so that fish could swim through its entire length in both directions….A parallel roadway would be constructed in the tunnel to allow equipment and personnel access

[50] DROD at 29.
[51] DROD at 29; Tribal Rights and Interests Specialist Report at 18, 42-44, 46, 51, 54, 56, 70-73; FEIS at ES-27, ES-33, 1-19, 2-169, 2-173-174, 4-80, 4-506, 4-662, 4-707, 4-710, 4-719, 4-723, 4-725, and 5-49.
[52] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957; Treaty with the Nez Perces, June 9, 1863, 14 Stat. 647.
[53] FEIS at 4-158.

> for monitoring, inspection, and maintenance. The accessway would function as a floodway for high flows, greater than the normal flow range within the fishway.[54]

Perpetua plans to begin diversion of nearly a mile of the EFSFSR into the tunnel in their third and last year of mine construction and to keep this reach of the EFSFSR underground until at least year 11 of their mining operations.[55] The purpose of the tunnel is to enable Perpetua to dewater and remine the legacy Yellow Pine Pit through which the EFSFSR currently passes. After approximately year 11 of the mine, Perpetua plans to backfill their mining pit and restore the EFSFSR riverbed over the top of the former pit.[56]

Tribal reservations of fishing rights at U&As in Stevens Treaties have been upheld and defined in numerous court cases, including the U.S. Supreme Court decisions in *U.S. v. Winans*[57] and *Seufert Bros. Co. v. U.S.*[58] Under this precedent, U&As are not defeasible or limited to the Tribe's ceded area or to open and unclaimed land. Reserved U&As are permanent and include the right of access—the right to cross private property when necessary to access all usual and accustomed places to exercise the right, even when surrounding land ownership changes.[59]

The Tribe's aboriginal ownership and control of the Project area and South Forth Salmon River watershed is well established. The Project is located entirely within the Tribe's area of exclusive use and occupancy as adjudicated by the Indian Claims Commission ("ICC") in its 1967 decision.[60] The U.S. Congress established the ICC in 1946 to adjudicate Indian tribes' claims against the United States for, among other issues, compensation for the taking of aboriginal lands by the United States without fair payment. The ICC required that compensable aboriginal land title be based on "actual exclusive and continuous use and occupancy 'for a long time' prior to the cession, transfer, or loss of the property."[61]

In its 1967 decision regarding the Tribe's claim for unconscionable compensation for land ceded to the United States in the 1855 Treaty, the ICC made comprehensive findings based on detailed anthropological evidence from both the Tribe and the United States. The ICC's decision regarding the Tribe's area of "exclusive use and occupancy" and "aboriginal ownership," as against any other Indian tribes, included the Project site and EFSFSR watershed.[62]

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[54] FEIS at 2-60, 4-372.
[55] FEIS at 4-372.
[56] FEIS at 2-87.
[57] *Winans*, 198 U.S. 371.
[58] *Seufert Bros. Co. v. United States*, 249 U.S. 194 (1919); *Washington v. Washington State Com. Passenger Fishing Vessel Ass'n*, 443 U.S. 658 (1979).
[59] *Winans*, 198 U.S. at 381-382; *Muckleshoot Indian Tribe*, 698 F. Supp. at 1516 (This right of access to an established U&A "cannot be impaired or limited without an act of Congress."); *Nw. Sea Farms*, 931 F. Supp. at 1522.
[60] *Nez Perce Tribe v. United States*, Docket #175, 18 Ind. Cl. Comm. 1 at 128-129; Attachment 1.
[61] *Nez Perce Tribe v. United States*, Docket #175, 18 Ind. Cl. Comm. 1 at 128; Attachment 1.
[62] Given the ICC decision, other Indian tribes' asserted rights or interests within the Project area are without legal or other evidentiary support. No federal court has ever altered the Indian Claims Commission's findings of fact and conclusions of law nor is there any legal or evidentiary support that would justify doing so.

The United States, acting in its capacity as the Tribe's trustee, submitted substantial evidence in the Snake River Basin Adjudication regarding the Tribe's historical and present occupation and use of the Salmon River watershed. Mr. Greiser appended to his affidavit a map titled "Distribution of Known Archeological Sites," which shows Nez Perce archeological sites throughout the EFSFSR headwaters within what is now the Project site.[63] Nez Perce elder Rudy Carter stated in his affidavit that the "Nez Perce people historically fished on almost all of the tributaries to the Snake River, the Salmon River, and the Clearwater River."[64]

Several of the Nez Perce elder affidavits filed by the United States in the SRBA specifically confirm that the EFSFSR within the Project site is a Nez Perce U&A. The Silas Whitman, Elmer Crow, and Ron Oatman affidavits and accompanying maps all identify the EFSFSR within the Project site as a Nez Perce U&A.[65] Mr. Whitman, for example, stated in his affidavit that "Attachment [A][66] to this affidavit is a list of 125 fishing places…This is a list of usual and accustomed fishing places which either I have *personally* fished at or which I am familiar with as places which have been utilized by Nez Perce people."[67] Attachment A includes the "East Fork or South Fork Salmon River," "Tamarack Creek," and "Sugar Cane Creek."[68] The "Nez Perce Usual and Accustomed Fishing Places" map found in Mr. Greiser's affidavit also specifically identifies the EFSFSR within the Project site as a Nez Perce "elder fishing place."[69]

Last year, Nez Perce Tribal members Joe Oatman and Emmit Taylor, separately submitted declarations on June 6, 2023, in the Tribe's protest of Perpetua's air quality permit with the Idaho Department of Environmental Quality, testifying to having personally fished the Tribe's U&A within the boundaries of the Perpetua's proposed Project.[70]

Perpetua's proposal to move portions of the EFSFSR and its tributaries underground[71] and, specifically, its proposal to move 0.9 miles of the EFSFSR underground for at least 12 years will physically prevent the Tribe's members from accessing parts of their EFSFSR U&A for over a decade, at minimum. Were Pereptua to locate additional ore in the Yellow Pine Pit or were their mining to be slowed down for some unexpected reason, a 0.9 miles of the EFSFSR could be underground for longer, potentially far longer.

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[63] Affidavit of T. Weber Greiser at 73; Attachment 9 at pdf page 134.

[64] Affidavit of Rudolph H. "Rudy" Carter, *In re the General Adjudication of Rights to the Use of Water from the Snake River Basin Water System*, Case No. 39576 (5th Jud. Dist. Idaho Sept. 8, 1998), at 4.

[65] Affidavit of Silas Caleb Whitman, Attachment A at 4; Affidavit of Elmer Paul Crow, In re the General Adjudication of Rights to the Use of Water from the Snake River Basin Water System, Case No. 39576 (5th Jud. Dist. Idaho Sept. 8, 1998), Attachment A at 10; Affidavit of Ronald "Ron" Oatman, *In re the General Adjudication of Rights to the Use of Water from the Snake River Basin Water System*, Case No. 39576 (5th Jud. Dist. Idaho Sept. 8, 1998), Attachment A at 8.

[66] Mr. Whitman mistakenly identified the relevant attachment as "Attachment B." His list of U&As is found in Attachment A to his affidavit.

[67] Affidavit of Silas Caleb Whitman at 7 (emphasis added).

[68] Affidavit of Silas Caleb Whitman, Attachment A at 16.

[69] Affidavit of T. Weber Greiser, Appendix A at 70 (map depicting Nez Perce usual and accustomed fishing places based on identification by Nez Perce elders and known archaeological, ethnographic, and historic references).

[70] Attachments 2 and 3.

[71] FEIS at 4-158.

Under Article VI of the U.S. Constitution, United States Supreme Court precedent, the Forest Service lacks the authority to approve a Project that would violate the rights the Tribe reserved under the 1855 and 1863 treaties.

1.4.5.2. Suggested Remedies

The Forest Service should select the Project's no action alternative or withdraw the DROD and require Perpetua Resources to submit a new Operations Plan that complies with the Tribe's 1855 and 1863 treaties with the United States.

1.4.5.3. Prior Comments

The Tribe previously raised concerns related to the existence of, and interference with, the Tribe's U&As within the Project area on pages 1, 43, 57, 60-63, 124-126, and 132 of its written comments on the Project's SDEIS.

1.4.6. Objection: The DROD and FEIS erroneously identifies the Project area as the traditional territory of the Shoshone-Bannock Tribes and the Shoshone-Paiute Tribes; neither tribe holds treaty-reserved sovereign rights within the Project site.

1.4.6.1. Issue

Section 3.4.4.20 of the FEIS, titled "Environmental Justice" states "[t]he tribes have specific rights regarding the affected land in accordance with the Nez Perce Tribe Treaty of 1855, the Fort Bridger Treaty of 1868 (Shoshone-Bannock) and the Shoshone-Paiute Executive Order of 1877."[72] The FEIS also states that the "Nez Perce Tribe, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes traditional subsistence ranges include the SGP area. There are several traditionally collected plant and animal species, including various types of salmon, in the analysis area."[73]

The Tribe's rights are well-established in the Project area and SFSR watershed. The Project is located entirely within the Nez Perce's area of exclusive use and occupancy as adjudicated by the Indian Claims Commission in its 1967 decision.[74] The Indian Claims Commission (ICC) was established under the Indian Claims Act of 1946 by the United States Congress to hear any long standing claims of Indian tribes against the United States. The ICC required that compensable aboriginal land title be based on "actual exclusive and continuous use and occupancy 'for a long time' prior to the cession, transfer, or loss of the property."[75]

In its decision for the Nez Perce Tribe, the ICC made comprehensive findings regarding the Tribe's claim for unconscionable compensation for land ceded to the United States in the 1855 Treaty.

[72] FEIS at 3-73.
[73] FEIS at 3-488.
[74] *Nez Perce Tribe v. United States*, Docket #175, 18 Ind. Cl. Comm. 1 at 128.
[75] *Id.*

The ICC's comprehensive findings in its decision were based on detailed anthropological evidence from both the United States and the Nez Perce of the area of "exclusive use and occupancy" and "aboriginal ownership" as against any other Indian tribes. Among other areas, the ICC's decision included the entire area encompassing the Project and affected SFSR watershed. Given this decision, other Indian tribes' asserted rights or interests within the Project area are without legal or other evidentiary support. No federal court has ever altered the ICC's findings of fact and conclusions of law nor is there any legal or evidentiary support that would justify doing so.

1.4.6.2. Suggested Remedies

The Forest Service must acknowledge in the FEIS and ROD for the Project that the Project site is—as *adjudicated* by the Indian Claims Commission (and not just "claimed" by the Nez Perce Tribe as the Forest Service asserts in its Specialist Report[76])—within the Nez Perce Tribe's area of exclusive use and occupancy area.[77]

1.4.6.3. Prior Comments

The Tribe made these points on pages 57-58 of its January 5, 2023, comments on Forest Service's SDEIS for the Stibnite Gold Project.

1.4.7. Objection: The Tribe, as a co-manager of its Treaty-reserved resources, must be allowed to participate in all mitigation and oversight activities.

1.4.7.1. Issue

To ensure the Tribe's co-management of its treaty-reserved resources, the Tribe must be included in all oversight activities during the operation and reclamation phases. The DROD contains a number of review, disclosure, and site visit requirements in which the Tribe is not mentioned but must be included.

1.4.7.2. Suggested Remedies

[76] Tribal Rights and Interests Specialist Report, section 6.1.1 at 22.
[77] *Nez Perce Tribe v. United States*, Docket #175, 18 Ind. Cl. Comm. 1.

The final ROD must recognize that the Tribe has the right to be involved in and ensure oversight during operations and reclamation. For example, the Tribe must be included in the list of reviewer invitees assisting the Independent Tailings Review Board and must be included in annual site visits to review mitigation measures.[78] The Tribe must also receive all reports, including monitoring reports and annual reclamation reports.[79]

1.4.7.3. Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. This is the Tribe's first opportunity to review the language in the Forest's DROD.

2. Mining Law of 1872

2.1. Forest Service Cannot Approve a Project That Will Violate the 1872 Mining Law.

2.1.1. Objection: Failure to ensure, as required under the plain language of the 1872 Mining Law, that the Project is not "inconsistent with" the United States' 1855 and 1863 treaties with the Tribe.

2.1.1.1. Issue

Congress, in enacting the 1872 Mining Law, declared that the federal public domain is "to be free and open to exploration and purchase" so long as such activities are "not inconsistent with the laws of the United States."[80] Two of those "laws of the United States" referenced in the Mining Law are the Tribe's 1855 and 1863 Treaties—ratified over a decade before the Mining Law.

The 1855 and 1863 treaties remain the supreme law of the land with their terms guaranteed under Article VI of the U.S. Constitution[81] and the fishing right they reserved to the Nez Perce Tribe remains a property right protected under the Fifth Amendment.[82] As a result, their provisions should be faithfully applied and upheld by the Forest Service when approving any proposed mineral activities under the 1872 Mining Law on federal public lands subject to the Tribe's treaties.

The U.S. Supreme Court—from its 1905 decision in *United States v. Winans*,[83] to its 2018 affirmance in *Washington v. United States*[84]—has confirmed that the Tribe's treaty-reserved fishing right established "a servitude upon every piece of land" securing to the signatory tribes the continual exercise of the right[85] and meaningful protections against interference. While these Supreme Court cases were necessarily decided on their specific facts, these landmark decisions

[78] *See* DROD at 12–13, 68.
[79] *See* DROD at 17–18, 72.
[80] 30 U.S.C. § 22.
[81] U.S. Const. art. VI, cl. 2.
[82] U.S. Const. amend. V.; *Muckleshoot Indian Tribe*, 698 F. Supp. at 1510.
[83] *Winans*, 198 U.S. 371.
[84] *Washington v. United States*, 138 S. Ct. 1832 (2018).
[85] *United States v. Winans*, 198 U.S. 371, 381 (1905).

construing the treaty language to encompass significant protections for the treaty right to fish illustrate that other land use practices, including mining, are subject to treaty-reserved rights as well.

The Forest Service erroneously construes its authority to evaluate the Project under the 1872 Mining Law and its implementing regulations as limited to "minimiz[ing] adverse environmental impacts on National Forest surface resources (36 CFR 228.8)."[86] This narrow interpretation of the Forest Service's authority conflicts with the plain language of the 1872 Mining Law, which states:

> Except as otherwise provided, all valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States and those who have declared their intention to become such, under regulations prescribed by law, and according to the local customs or rules of miners in the several mining districts, so far as the same are applicable and *not inconsistent with the laws of the United States*.[87]

Two such "laws of the United States" that exploration and occupation under the 1872 Mining Law may not be inconsistent with are the Tribe's 1855 and 1863 treaties, which were signed and ratified before the 1872 Mining Law.[88] As a result, the provisions of the 1855 and 1863 Treaties should be, without controversy or consternation, faithfully and fully applied and upheld by the Forest Service when approving any proposed mineral activities under the 1872 Mining Law on federal public lands subject to the Tribe's treaties.

2.1.1.2. Suggested Remedies

The Forest Service must withdraw the DROD and FEIS and complete a supplemental EIS to re-examine the Project's compliance with the 1872 Mining Law's provision prohibiting mining exploration and occupation "inconsistent with the laws of the United States," including the Tribe's 1855 and 1863 treaties.

2.1.1.3. Prior Comments

The Tribe previously raised its concerns related to the Forest Service's misinterpretation of the 1872 Mining Law on pages 7-9, and 33-34 of its written comments on the Project's SDEIS. In response to the Tribe's comments, the Forest Service asserted:

> Approving mining operations authorized by the 1872 Mining Law is different than any other proposed actions within the Forest. Most proposed actions originating within the Forest Service can be

[86] DROD at 3.

[87] 30 U.S.C. § 22 (emphasis added).

[88] The United States's 1855 Treaty with the Tribe was ratified by Congress in 1859 and the United States's 1863 Treaty with the Tribe was ratified in 1867.

> tailored to achieve certain future conditions, goals and objectives stated in the Forest Plans. However, mining operations are designed by the proponents around the constraints of natural site conditions, reasonably available methods of operation, and economics. Therefore, review and approval of mining operations on the NFS lands needs to consider what level of environmental protection is reasonable and feasible instead of forcing compliance with all Forest Plan goals or objectives.
>
> The 36 CFR 228A rules recognize that the U.S. mining laws confer a statutory right to enter NFS lands. The rules also recognize that mining operations can produce significant impacts to forest resources and the goal of the Forest Service rules and procedures is, "where feasible", to minimize adverse environmental impacts on the NFS surface resources. Rule 228.8 incorporates requirements for harmonizing operations with scenic values, maintaining and protecting fisheries and wildlife, and reclaim[ing] the surface disturbed by mining to "practicable" degrees. The Forest Service believes the 2021 MMP, as mitigated, complies with the intent of the 228A regulations.[89]

The DROD reflects the Forest Service's response to the Tribe's comments. It contends:

> The statutory right to search for, develop, and extract mineral deposits on federal lands open to mineral entry was established by the General Mining Law of 1872, as amended. These rights include the right to locate a mining claim and the right to reasonable access to the claim for further exploration, development, mining, or necessary ancillary activities.
>
> The Selected Alternative allows Perpetua to exercise its rights under the mining laws in a manner consistent with the requirements governing surface use and occupancy of NFS lands in connection with mining operations consistent with 36 CFR 228A.[90]

The Forest Service, in narrowly limiting its own authority under the 1872 Mining Law and implementing regulations, has evaluated the Project in violation of the statute's express provision prohibiting mining exploration and purchase on federal lands if those activities are inconsistent with the laws of the United States. The Forest seems to believe that other laws must bend in the face of the 1872 Mining Law—that only reasonable and feasible protections may be afforded when a person or company expresses the desire to explore or occupy Forest Service lands. This interpretation is contrary to the statue's own plain text and impermissibly deprioritizes the rights, including property rights, the Tribe reserved with the United States in the 1855 and 1863 Treaties.

[89] FEIS App. B at B-34.
[90] DROD at 41.

2.2. Claims Validation Prerequisite for Occupancy and Mining Under the 1872 Mining Law

2.2.1. Objection: Forest Service has failed to validate each of Perpetua Resources' mining and mill claims.

2.2.1.1. Issue

In *Center for Biological Diversity v. U.S. Fish and Wildlife Service* ("*Rosemont*"),[91] the Ninth Circuit Court of Appeals held that "discovery of valuable minerals is essential to the right to *any* occupancy—temporary or permanent—beyond the occupancy necessary for exploration" under the 1872 Mining Law.[92] The court further stated, a load mining "claim is valid only if valuable minerals have been found on the claim"[93] and asserted that the Forest Service may not assume the validity of mining claims.[94] Under the 1872 Mining Law, every mill site claim must also be contiguous with a valid load mining claim.[95]

The Forest Service in its response to comments on the Project's SDEIS contends that it is not "assuming the validity of the [load] mining claims included in the SGP."[96] The Forest Service points to section 4 and Appendix II of Perpetua Resources' 2021 Feasibility Technical Report, which the Forest Service says,

> describes the mineralization at the SGP property and the location of the mineral resources to be mined on patented and unpatented mining claims within the property. The report also states that, as of the effective date of the report, December 2020, the property taxes were paid in full for the patented mining claims" and that "[t]his information can be considered reliable evidence that the subject claims are properly authorized by the 1872 Mining Law.[97]

The Forest Service also points out that section 4 of Perpetua Resources' 2021 Feasibility Technical Report "references a legal opinion prepared by a well-known law firm with expertise in these matters, Parson, Behle & Latimer" and that the report states that "'no significant flaws or title issues have been identified in multiple formal title reviews of the claims performed by qualified, independent, title examiners'."[98]

The Tribe has reviewed section 4 and Appendix II of the 2021 Feasibility Technical Report. Section 4 and Appendix II provide respectively: the location of the Project, the company's corporate structure, when and from whom the company acquired mining claims, various previous

[91] *Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 33 F.4th 1202 (9th Cir. 2022).
[92] *Id.* at 1220.
[93] *Id.* at 1217–18.
[94] *Id.* at 1221 (9th Cir. 2022).
[95] 30 U.S.C. § 42(a).
[96] FEIS App. B at B-1.
[97] FEIS App. B at B-1.
[98] FEIS App. B at B-1.

consent decrees under CERCLA at the Stibnite site, information related to the company's environmental liability, environmental permits the company has received and is seeking, a land status map, and tables listing the load and mill site claims the company owns. In this information, the Tribe can locate no information regarding the discovery of valid minerals on each of Perpetua Resources' load claims nor any information regarding the physical relationship between Perpetua Resources' load and mill site claims. With respect to the legal letter the Forest Service references, the 2021 Feasibility Technical Report states in full:

> In a legal opinion, dated April 25, 2019, by Jason Mau of the law firm of Parsons, Behle & Latimer, the patented and unpatented lode mining and mill site claims are owned or optioned by Midas Gold's U.S. subsidiaries; Idaho Gold Resources Company LLC (IGRCLLC) and its wholly owned subsidiary Stibnite Gold Company (SGC), both Idaho registered business entities. No significant flaws or title issues have been identified in multiple formal title reviews of the Claims performed by qualified, independent, title examiners. A number of independent legal opinions in respect of mineral title have been prepared on behalf of Midas Gold in support of its initial listing as a public company, subsequent financings, and sale of a royalty to a third party.[99]

The Tribe does not have access to the Parsons, Behle & Latimer letter. Nevertheless, the fact that "no significant flaws or title issues have been identified in multiple formal title reviews of the claims performed by qualified, independent, title examiners'" is simply beside the point. It is also beside the point that, as the Forest Service points out in its response to comments, that as of 2020 Perpetua Resources had paid its property taxes in full.

The issue raised in the *Rosemont* case was not whether a company needs to hold title to a load claim under the 1872 Mining Law in order to occupy and mine Forest Service land, but whether the Forest Service can authorize a mining company to occupy and mine Forest Service land under the 1872 Mining Law without evidence that valuable minerals had been discovered on each of the company's load claims.[100]

After reviewing the 2021 Feasibility Technical Report, the Tribe cannot agree with the Forest Service that the information it presents "can be considered reliable evidence that the subject claims are properly authorized by the 1872 Mining Law"[101] in light of the *Rosemont* case. The Tribe has simply not been able to locate any information in Perpetua Resources' 2021 Feasibility Study Technical Report, or in the FEIS or DROD for the Project, that valuable minerals have been discovered on each of Perpetua Resources' load claims or that the company's mill site claims are contiguous with its load claims on which valuable minerals have been discovered. Without this information, the Forest Service cannot authorize Perpetua Resources to occupy and mine Forest Service lands.

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[99] Stibnite Gold Project Feasibility Study Technical Report (January 27, 2021) at 4-1.
[100] *Ctr. for Biological Diversity*, 33 F.4th at 1224.
[101] FEIS App. B at B-1.

2.2.1.2. Suggested Remedies

The Forest Service must produce evidence and verify that valuable minerals have been discovered on each of Perpetua's load claims that the company intends to mine and that each of Perpetua's mill site claims that the company plans to use is contiguous with one of its valid load mining claims.

2.2.1.3. Prior Comments

The Tribe previously commented on the need for the Forest Service to comply with the *Rosemont* decision on pages 7-9 of its comments on the Project's SDEIS.

3. Forest Service Land Management Laws and Regulations.

The Mining Law of 1872 allows for the exploration and purchase of "valuable mineral deposits" on federally-managed lands, subject to "regulations prescribed by law" and so far as "not inconsistent with the laws of the United States."[102] In addition to the limits of laws then in effect, "later statutes—particularly environmental laws such as the National Environmental Policy Act ("NEPA") and the Endangered Species Act ("ESA")—have restricted the manner in which miners with valid claims under the Mining Law can perform their mining operations."[103] Other statutes include the Forest Service's operative land management laws: the Organic Administration Act of 1897 ("Organic Act") and the National Forest Management Act ("NFMA") .

The Organic Act "authorizes the Secretary of Agriculture to promulgate rules and regulations to protect the national forest lands from destruction and depredation."[104] It is well settled that "where mining activity disturbs national forest lands, Forest Service regulation is proper."[105] The Forest Service regulates mining in part pursuant to its 36 C.F.R. Part 228A regulations. Among its requirements are those for environmental protection. All operations must be "conducted, so as, where feasible, to minimize adverse environmental impacts on National Forest surface resources," including, inter alia, air and water quality and fisheries and wildlife habitat.[106] With respect to fisheries and wildlife habitat, an operator must "take all practicable measures to maintain and protect fisheries and wildlife habitat which may be affected by the operations."[107]

NFMA requires the Forest Service to "develop, maintain, and, as appropriate, revise land and resource management plans for units of the National Forest System."[108] All subsequent "[r]esource plans and permits, contracts, and other instruments" must be consistent with the plans.[109] NFMA allows plans to "be amended in any manner whatsoever after final adoption,"[110] subject to statutory

[102] 30 U.S.C. § 22.
[103] *Ctr. for Biological Diversity*, 33 F.4th at 1209.
[104] *Clouser v. Espy*, 42 F.3d 1522, 1529 (9th Cir. 1994) (citing 16 U.S.C. § 551.7).
[105] *Id.*
[106] 36 C.F.R. § 228.8.
[107] 36 C.F.R. § 228.8(e).
[108] 16 U.S.C. § 1604(a).
[109] *Id.* § 1604(i).
[110] *Id.* § 1604(f)(4).

and regulatory requirements. Amendments that "would result in a significant change in such plan" must comply, inter alia, with NFMA's requirements for public involvement and principles of multiple use which, "in particular, include coordination of outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness."[111] Further, the 2012 Planning Rule issued under NFMA requires "identification of the need to change the plan."[112] The scope of the plan amendment "depend[s] on the need for change."[113] All prescribed methods for resolving inconsistencies between a proposed project and a plan—project modification, plan amendment, or rejection or termination of the proposal—must be made "subject to valid existing rights."[114]

3.1. Violations of the 36 C.F.R. Part 228A Regulations.

3.1.1. Objection: Failure to minimize environmental impacts.

3.1.1.1. Issue

With respect to minimization, the DROD asserts that "[t]he Selected Alternative minimizes adverse environmental impacts on National Forest surface resources where feasible, consistent with the requirements of 36 C.F.R. 228A, while providing sufficient access to allow mining operations to proceed."[115] The DROD goes on to state that the Forest has "taken into consideration the degree to which the environmental design features, monitoring, and mitigation measures will, where feasible, minimize adverse environmental impacts on National Forest surface resources, and the predicted effects of the Selected Alternative on groundwater and surface water quality in the area with respect to state and federal requirements."[116]

Yet the record shows no meaningful evaluation of whether the Project complies with the minimization requirements in 36 C.F.R. § 228.8. To the contrary, the Forest avoids the inquiry.

To start, the Forest has not defined, nor made its own evaluation of, feasibility. Instead, it relies instead on Perpetua's own self-serving assessment. The Tribe provided extensive comments calling for the Forest to conduct a credible feasibility analysis, including for economic feasibility, with direction for how to do so.[117] In response, the Forest only points to Perpetua's proposal, stating "[t]here is no need to disregard Perpetua's purpose and need for the Project."[118]

Moreover, the Forest has not appropriately defined the purpose and need for the Project—an error which, as discussed in objections below, short-circuits meaningful NEPA alternatives analysis, including consideration of proposed alternatives that would have far fewer adverse environmental impacts.

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[111] *Id.* §§ 1604(f)(4), (e)(1), & (d).
[112] 36 C.F.R. § 219.13(b)(1).
[113] *Id.* § 219.13(a).
[114] *Id.* C.F.R. § 219.15(c); *see also* 16 U.S.C. § 1604(i) ("Any revision in present or future permits, contracts, and other instruments made pursuant to this section shall be subject to valid existing rights.").
[115] DROD at 32.
[116] DROD at 32.
[117] *See, e.g.*, NPT SDEIS Comments at 17-19.
[118] FEIS App. B at B-115.

In sum, the Forest has abdicated its duty to comply with 36 C.F.R. § 228.8. The FEIS and DROD evaluate and approve Perpetua's proposed action without evaluating alternatives or mitigation measures that would allow Perpetua to mine with fewer environmental impacts.

3.1.1.2. Suggested Remedies

The Forest must comply with 36 C.F.R. § 228.8. By undertaking an independent evaluation of feasible mitigation and minimization measures, including supplemental NEPA alternatives analysis evaluating more environmentally protective alternatives.

3.1.1.3. Prior Comments

The Tribe commented on the 36 C.F.R. Part 228A requirements, minimization, feasibility, purpose and need, and alternatives analysis throughout its comments to the DEIS and SDEIS, including in its comments on the SDEIS at pages 5-7, 11-12, 33, 38-39, 69, and 73.

3.2. Violations of NFMA

3.2.1. Objection: Failure to properly evaluate the Project's need for purposes of amending the Payette and Boise National Forest Land Resource Management Plans.

3.2.1.1. Issue

As discussed above, the decision to amend a LRMP depends on "identification of the need to change the plan,"[119] and the scope of the plan amendment depends in turn "on the need for change."[120] For plan amendments to be appropriate, the need must be reasonable and stated accurately.

According to the Forest, "[t]here is a need to amend the Boise and Payette National Forest Land and Resource Management Plans to fully implement the Stibnite Gold Project."[121] This is not an accurate or reasonable need for amending the plans. The Forest has no obligation under the Mining Law of 1872 or any other authority to approve mining proposals carte blanche. To the contrary, authorizations made under the Mining Law must be made subject to other federal law. As discussed above, the Forest Service has well-settled authority to regulate mining to, among other purposes, comply with LRMPs and thereby avoid the need for amendment.

3.2.1.2. Suggested Remedies

[119] 36 C.F.R. § 219.13(b)(1).
[120] 36 C.F.R. § 219.13(a).
[121] DROD at 40.

The Forest Service should re-formulate its need statement to reflect its duties under federal law, and re-evaluate its decision to amend the Boise and Payette LRMPs accordingly.

3.2.1.3. Prior Comments

This is the Tribe's first opportunity to review the Forest Service's DROD and its objection relates to the DROD, not prior NEPA analyses on which it had an opportunity to comment. However, the Tribe has commented on the related flaws in the Forest Service's purpose and need statement for the Project on pages 6-7, 11-12, 38-39, and 73 of its comments on the Forest Service's SDEIS for the Project.

3.2.2. Objection: Failure to analyze and ensure the Project's compliance with the Payette and Boise National Forest Land Resource Management Plans.

3.2.2.1. Issue

The Tribe commented extensively on its concern that the Project as analyzed and approved will violate forest plan standards and guidelines, including for soil resources, threatened and endangered species, plants, wildlife and wildlife habitat, and other resources. In response, the Forest Service states, repeatedly:

> All Land and Resource Management Plan (LRMP) standards and guidelines for the Boise and Payette National Forests were checked for compliance. The LRMP consistency spreadsheet (2019_0718_MG_REVIEW_SGP_DRAFT_FSPlanConsistency_Final) is included in the Project record and briefly describes if the project applies to, complies, or does not comply with each plan component.[122]

Reliance on the spreadsheet is itself a violation of the 2012 Planning Rule, which requires the Forest to "[a]mend the plan consistent with Forest Service NEPA procedures."[123] The spreadsheet should have been disclosed.[124] Moreover, the Forest should have provided its evaluation of whether the Project conforms to LRMP components with its NEPA analysis to both "show its work" and provide an opportunity for the Tribe and public review and provide comment.

Based on the existing record, it appears the Forest Service only evaluated those standards and guidelines it decided to amend[125] and summarily dismissed concerns with the rest. The LRMP consistency spreadsheet only contains cursory rationales for compliance (e.g., "PNF + BNF

[122] FEIS App. B at B-694.
[123] 36 C.F.R. 219.13(b)(3).
[124] The Tribe is not sure that the spreadsheet has even been finalized. The Tribe has included with this objection the version of the spreadsheet in the Tribe's possession and on which it is now relying, and, based on the file name, assumes it to be the same version the Forest references in response to comments. Many plan components are denoted as having "analysis pending."
[125] *See* FEIS App. A.

TEST04: Adverse effects on proposed or candidate species would not lead to listing")[126] that amount to non-answers to the Tribe's identification of plan component violations and do not provide evidence meaningful evaluation.

Additionally, the Forest Service has failed to ensure that the plan amendments comply with the "directly related" requirements of the 2012 Planning Rule. The Forest Service revised portions of the 2012 Planning Rule in 2016 to require the Forest Service to "[d]etermine which specific substantive requirement(s) within §§ 219.8 through 219.11 are directly related to the plan direction being added, modified, or removed by the amendment," and then "apply such requirement(s) within the scope and scale of the amendment."[127] And yet, repeatedly, the Forest Service wrongly determines that amendments are "not directly related" to many 2012 Planning Rule requirements, and wrongly asserts that amendments will meet Planning Rule requirements.[128]

3.2.2.2. Suggested Remedies

The Forest Service must undertake and disclose an analysis in compliance with the Payette and Boise National Forest LRMPs, and appropriately modify (or reject) the Project to ensure consistency.

3.2.2.3. Prior Comments

The Tribe comments on Project-related plan amendments at pages 113–16 of its October 27, 2020 comments on the DEIS and throughout its January 5, 2023, comments on the SDEIS, including on pages 34, 71, 84–86, 119, and 129–36.

3.2.3. Objection: Failure to consider valid, existing rights when amending the Payette and Boise National Forest Plans.

3.2.3.1. Issue

All prescribed methods for resolving inconsistencies between a proposed Project and a plan—project modification, plan amendment, or rejection or termination of the proposal—must be accomplished in a manner that upholds "valid existing rights."[129] The Tribe's rights reserved in its 1855 and 1863 treaties with the United States are "valid existing rights" applicable to the Project area.

Glaringly, the Forest Service gave no consideration to modifying the Project to comply with forest plan components; rather it is amending plan components, including standards and guidelines, that protect the Tribe's valid, existing treaty rights from derogation.

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[126] FEIS App. B at B-695.
[127] 36 C.F.R. § 219.13(b)(5).
[128] FEIS App. A at A-5–12, A-16–21, A-25–29, A-32–36, A-39–42, A-45–49.
[129] 36 C.F.R. § 219.15(c); *see also* 16 U.S.C. § 1604(i) ("Any revision in present or future permits, contracts, and other instruments made pursuant to this section shall be subject to valid existing rights.").

3.2.3.2. Suggested Remedies

In accordance with NFMA and its planning regulations, the Forest Service must either change the Project authorization to avoid derogating the Tribe's valid, existing treaty rights or reject the proposal.

3.2.3.3. Prior Comments

The Tribe raised the Forest Service's failure to consider valid existing rights at pages 12–13 of its comments on the SDEIS.

3.2.4. Objection: Failure to evaluate potential species of conservation concern.

3.2.4.1. Issue

The 2012 Planning Rule defines "species of conservation concern" ("SCC") as "a species, other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area."[130] When amending plans developed prior to the 2012 Planning Rule, "if species of conservation concern (SCC) have not been identified for the plan area and if scoping or NEPA effects analysis for the proposed amendment reveals substantial adverse impacts to a specific species, or if the proposed amendment would substantially lessen protections for a specific species, the responsible official must determine whether such species is a potential SCC, and if so, apply section § 219.9(b) with respect to that species as if it were an SCC."[131]

The Forest Service has altogether failed to comply with this requirement. In its Amendment Review table, the Forest either claims that the SCC requirement "is not directly related to [the] project-specific amendment,"[132] or that "[t]here are no species known to occur within the proposed SGP area with a substantial concern about the species capability to persist over the long-term in the Forest Plan area," and therefore "this substantive requirement is not directly related to [the] project specific alternative."[133]

Neither response is valid. The plan amendments lessen protections for aquatic, terrestrial, and plant species known to occur in the Payette and Boise National Forest plan areas, and for which substantial concern exists about the species' capabilities of persisting in the long term. Aquatic species alone include Pacific lamprey, Western pearlshell mussels, and cutthroat trout. Others can be found on the Forest's list of sensitive species, most if not all of which will warrant consideration for SCC designation when the Boise and Payette National Forests revise their plans.[134]

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[130] 36 C.F.R. § 219.9(c).
[131] *Id.* § 219.13(b)(6).
[132] *See, e.g.*, FEIS App. A at A-18.
[133] FEIS App. A at A-9, *see also* FEIS App. A at A-33.
[134] *See* USFS, Intermountain Region (R4) Threatened, Endangered, Proposed, and Sensitive Species (June 2016).

3.2.4.2. Suggested Remedies

The Forest must catalog species to which the NEPA effects analysis shows substantial adverse impacts to a specific species, determine whether those species are potential SCC, and apply 36 C.F.R. § 219.9(b) with respect to those species, as if they were an SCC.

3.2.4.3. Prior Comments

The Tribe raised this issue on page 115 of its October 27, 2020, comments on the DEIS.

4. National Environmental Policy Act

The National Environmental Policy Act ("NEPA") requires federal agencies to prepare an environmental impact statement ("EIS") for all "major federal actions significantly affecting the quality of the human environment."[135] An EIS must "provide full and fair discussion of significant effects and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse effects or enhance the quality of the human environment."[136]

4.1. NEPA's Hard Look and Mitigation Requirements

NEPA requires that agencies take a "hard look" at the direct, indirect, and cumulative environmental effects of alternatives including the proposed action,[137] as well as the means to mitigate against adverse environmental effects.[138] The information used to evaluate effects must be "high quality."[139] "Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implement NEPA."[140] The Tribe raises a number of objections based on the Forest Service's failures to take a hard look at, and mitigate, environmental effects in its issue- and resource-specific sections below. It raises three more at the outset here.

4.1.1. Objection: Failure to take a hard look under NEPA at how the Forest Service's decision for the Project will affect the Tribe's treaty-reserved right to access the Project site to erect temporary buildings for curing fish.

4.1.1.1. Issue

In its FEIS, the Forest Service looked at Project impacts to Tribal access and concluded:

> Tribal access to the Operations Area Boundary would be restricted during the SGP's construction, operations, and closure and reclamation phases, preventing tribal members from exercising their

[135] 42 U.S.C. § 4332(2)(C).
[136] 40 C.F.R. § 1502.1(b)
[137] 42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1508.1(i).
[138] 40 C.F.R. §§ 1505.2, 1505.3, 1505.15(b), 1505.16(a),
[139] *Id.* § 1500.1(b).
[140] *Id.*

> off- reservation rights to hunt, gather, and pasture on unoccupied federal lands, access streams and springs, and to fish in usual and accustomed places, for a period of 20 years.[141]

The Forest Service did not examine, however, how these access restrictions would affect the Tribe's treaty-reserved right to access the Project site "to erect temporary buildings for curing" fish.[142] The Forest Service's "Tribal access plan" or "Tribal Access Agreement" mitigation measure similarly makes no mention of the Tribe's reserved right to "to erect temporary buildings for curing" fish.[143] The Forest Service simply states, without mentioning the "temporary buildings" right, that "[a]ccess to some operating areas at some or most times (e.g., active mining areas, active haulage routes, ore processing) would be precluded due to safety and health requirements."[144]

4.1.1.2. Suggested Remedies

The Forest Service should withdraw the DROD and FEIS and conduct a supplemental analysis under NEPA that takes a hard look at how Project-related access restrictions and prohibitions would affect the Tribe's treaty-reserved right to access the Project site "to erect temporary buildings for curing" fish.[145] The Forest Service should also analyze whether and how its "Tribal access plan" or "Tribal Access Agreement" mitigation measure addresses this treaty-reserved right.

4.1.1.3. Prior Comments

The Tribe commented on the Project's impacts to the Tribe's treaty-reserved right of access on pages 12, 23, 61-63, 68, 91, 118, 124-126, and 132 of January 5, 2023, comments on the SDEIS.

4.1.2. Objection: The Forest Service failed to adequately disclose, analyze, and mitigate under NEPA air quality-related environmental and human health exposure impacts on Tribal members who cannot be precluded from the site during the life of the Project under the Tribe's 1855 and 1863 treaties[146] and on the Tribe's treaty-reserved resources within the Project boundary.

4.1.2.1. Issue

[141] FEIS at ES-33.
[142] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957, art. 3.
[143] Tribal Rights and Interests Specialist Report at 56-57.
[144] *Id.* at 57.
[145] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957, art. 3.
[146] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957; Treaty with the Nez Perces, June 9, 1863, 14 Stat. 647.

The Clean Air Act's implementing regulations define "ambient air" as "that portion of the atmosphere, external to buildings, to which the general public has access."[147] The Forest Service, states in its FEIS that the "Operations Area Boundary is defined as the ambient air boundary,"[148] which is "understood to be the limit of the operations area that would be closed to unrestricted public access. In this area, *public access would be prohibited*, or restricted through such measures that are accepted as means to control public access (EPA 2019a) such as security checkpoints, physical barriers at points of potential access road and trail entry, and security surveillance patrols."[149] And yet, despite this representation, Nez Perce Tribal members cannot be precluded from the Project site. They have a right of access to the site under the Tribe's 1855 and 1863 treaties with the United States.[150]

The Tribe has not been able to find any language in either the FEIS or the DROD where the Forest Service discloses, accounts for, or mitigates for air quality impacts on Nez Perce Tribal members present within the operations area/ambient air boundary. In its response to SDEIS comments, the Forest Service states that, "[w]hile there is no explicit NAAQS compliance within the Project boundary, OSHA compliance is required. Additionally, the permit/Final EIS requires controls to minimize emissions as much as practicable. Following the Project, restoration would occur as well."[151]

This response is inadequate. The Occupational Safety and Health Administration's rules only apply to employees and guests of the mine. Tribal members exercising their treaty-reserved rights are not employees or guests; their business within the Project boundary is wholly unrelated to the Project itself. Tribal members have a legal right to be present within the operational boundary for the purpose of exercising the Tribe's treaty-reserved rights at any time and they should be afforded air quality protections.

The Forest Service's treaty and trust responsibilities extend to all life, plants, and animals that cannot speak for themselves. The FEIS and DROD do not analyze and address the effect of NAAQS exceedances inside the operations area boundary may have on the Tribe's treaty-reserved resources located therein. The Tribe notes that OSHA's rules do nothing to protect the Tribe's treaty-reserved resources.

4.1.2.2. Suggested Remedies

Under NEPA, the Forest Service must disclose and analyze air quality environmental impacts within the Project site on the human health of Tribal members exercising the Tribe's treaty-reserved rights within the Project site and on the Tribe's treaty-reserved resources within the Project site. To protect the Tribe's treaty-reserved resources and Tribal member health, the Forest must either choose the No Action Alternative or develop mitigation measures to protect Tribal resources and members from air quality impacts.

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[147] 40 C.F.R. § 50.1(e).
[148] FEIS at 2-2.
[149] FEIS at 3-33 (emphasis added).
[150] Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957; Treaty with the Nez Perces, June 9, 1863, 14 Stat. 647.
[151] FEIS at B-165.

4.1.2.3. Prior Comments

This issue was raised by the Tribe on page 69 of its comment letter submitted to the Forest Service on the Project's SDEIS, dated January 5, 2023.

4.1.3. Objection: Failure to explain in the DROD how the mitigation measures identified in section 2.3.12, titled "Tribal Treaty Rights and Interests," comply with NEPA.

4.1.3.1. Issue

NEPA regulation 40 C.F.R. 1505.2(c) states that an agency's ROD for a project shall:

> State whether the agency has adopted all practicable means to mitigate environmental harm from the alternative selected, and if not, why the agency did not. Mitigation shall be enforceable when the record of decision incorporates mitigation and the analysis of the reasonably foreseeable effects of the proposed action is based on implementation of that mitigation. The agency shall identify the authority for enforceable mitigation, such as through permit conditions, agreements, or other measures, and prepare a monitoring and compliance plan consistent with § 1505.3(c).[152]

With respect to the "Pre-disturbance seed collection," "Tribal access plan," "Tribal Environmental Monitoring," and "Tribal observer program," and mitigation measures proscribed by the Forest Service in the DROD section 2.3.12, titled "Tribal Treaty Rights and Interests," the Forest Service has failed to:

1) State whether the agency has adopted all practicable means to mitigate environmental harm to the Tribe's treaty-reserved rights and interests from the alternative selected and why not;
2) Identify the authority for enforcing the implementation of these mitigation measures; and
3) Prepare a monitoring and compliance plan for the mitigation measures.

With respect to the Forest Service's third failure listed above, the Council on Environmental Quality has stated that "[w]hen agencies do not document and, in important cases, monitor mitigation commitments to determine if the mitigation was implemented or effective, the use of mitigation many fail to advance NEPA's purpose of ensuring informed and transparent environmental decisionmaking…Monitoring is fundamental for ensuring the implementation and effectiveness of mitigation commitments, meeting legal and permitting requirements, and identifying trends and possible means for improvement."[153]

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[152] *See also* 40 C.F.R. § 1500.2(e) and (f).

[153] Executive Office of the President Council on Environmental Quality, Memorandum for Heads of Federal Departments and Agencies, "Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigate Findings of No Significant Impact," Jan. 14, 2011.

To be clear, the "Tribal Environmental Monitoring" mitigation measure found in section 2.3.12 does not ensure Forest Service monitoring or the Forest Service's or Perpetua's implementation of any of the mitigation measures found in section 2.3.12. Rather, it is a separate mitigation measure that the Tribe could, but is not required to, use to deploy its own staff or members to monitor "locations of traditional tribal usage or specific natural resources of tribal interest."[154]

4.1.3.2. Suggested Remedies

With respect to the "Pre-disturbance seed collection," "Tribal access plan," "Tribal Environmental Monitoring," and "Tribal observer program," mitigation measures proscribed by the Forest Service in section 2.3.12, the Forest Service must state in the ROD: (1) whether the Forest Service has adopted all practicable means to mitigate environmental harm to the Tribe's treaty-reserved rights and interests from the alternative selected and if not, why not; (2) identify the Forest Service's authority for enforcing the implementation of this mitigation with Perpetua Resources; and (3) prepare a monitoring and compliance plan in compliance with 40 C.F.R. 1505.3(d) for these mitigation measures to ensure they are developed and implemented throughout the life of the Project.

4.1.3.3. Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. This is the Tribe's first opportunity to review the language in the Forest's DROD.

4.1.4. Objection: The Forest Service has failed to independently ensure Perpetua's Tailing Storage Facility will protect public safety and has failed to take a hard look under NEPA at the Tailing Storage Facility's potential environmental impacts, disclose those impacts to the Tribe and public, and mitigate for those impacts.

4.1.4.1. Issue

The Forest Service cannot rely on the Idaho Department of Water Resources ("IDWR") to ensure the Project's TSF will protect the public and environment. The Forest Service has an independent responsibility to the public and under NEPA to ensure that the projects it authorizes on public land are safe for humans and the environment. The Forest Service cannot rely on state agencies to satisfy this responsibility.

The Tribe previously raised its concern in its January 5, 2023, comments to the Forest Service regarding the SDEIS for the Project that the information provided by the Forest Service with respect to the technical aspects of the TSF's design was inadequate to comply with NEPA's public disclosure, environmental analysis, and mitigation requirements. The Tribe pointed out that the SDEIS lacked sufficient information related to the TSF's "geotechnical conditions, geohazard conditions, liner, cover, reclamation and closure, anticipated construction and third-party oversight" to understand the TSF's design, risks, and environmental effects.[155]

[154] DROD at 29.
[155] NPT SDEIS Comments at 27.

In response the Forest Service stated:

> The IDWR is the proper authority in Idaho to regulate design, construction and operation of dams, including tailings disposal facilities. These requirements are cited in Section 3.2.3 of the EIS. Perpetua would need to comply with the IDWR regulations and requirements for its TSF. The monitoring requirements for the TSF would be established by the IDWR permitting process and the Forest Service recognizes the primacy of the IDWR in these matters, so therefore has not specified monitoring of the TSF in the EIS.[156]

This response appears to be in tension with a recent decision by the United States District Court for the District of Alaska in *Orutsararmiut Native Council et al. v. United States Army Corps of Engineers, et al.* in which the court held the Army Corps' FEIS for a mining project violated NEPA by failing to adequately consider a tailings spill from the mine's tailing storage facility.[157] The Forest Service's response to comments also appears in tension in the Forest Service's decision in the DROD to require Perpetua Resources to use an Independent Tailings Review Board ("ITRB") tasked with assisting Perpetua Resources with:

- achieving design criteria for geotechnical stability of the tailings storage facility embankment and buttress during design, construction, and operation;
- achieving design tailings containment and environmental performance goals during design, construction, and operation;
- and managing tailings deposition in a way conducive to implementing closure-period process solution management and reclamation plans for the facility[158]

The Forest Service has also tasked the ITRB with issuing recommendations to the Perpetua Resources and the Forest Service, for "and review[] by Forest Service personnel for conformance with Forest Service standards and requirements."[159] Under what authority is the Forest Service imposing the use of an ITRB and why can't the Forest Service impose additional design and safety criteria under the same authority?

The Forest Service's decision to impose the use of an ITRB suggests that the Forest Service recognizes the inadequacy of Idaho's TSF standards, the value of the requirements contained in the Global Industry Standard on Tailings Management or "GISTM," and its independent authority to impose adequate safety and environmental protections for the Project.

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[156] FEIS App. B at B-71.

[157] *Orutsararmiut Native Council, et al. v. United States Army Corps Of Engineers, et al.,* No. 3:23-CV-00071-SLG, 2024 WL 4349692, at *1 (D. Alaska Sept. 30, 2024).

[158] DROD at 12-13.

[159] DROD at 12-13.

The Tribe continues to believe that IDWR's rules and regulations are wholly inadequate to ensure the Project's TSF protects public safety and adequately mitigates for environmental impacts. The Tribe, therefore, supports the Forest Service requiring Perpetua to adhere to the requirements contained in the GISTM.

4.1.4.2. Suggested Remedies

The Forest Service should issue a supplement EIS that takes a hard look at the Project's TSF's by including sufficient information related to the TSF's geotechnical conditions, geohazard conditions, liner, cover, reclamation and closure, anticipated construction, and third-party oversight to disclose, understand, and mitigate for the TSF's design, risks, and environmental effects. The Forest service should also require Perpetua to comply with the TSF standards found in with the GISTM for TSF design, operation, monitoring and closure.

4.1.4.3. Prior Comments

The Tribe previously raised concerns regarding the adequacy of Project's TSF on pages 19, 26-31, 33, 76-80, 137-138 of its January 5, 2023, SDEIS comments on the Project.

4.2. NEPA's Alternatives Requirements

The alternatives analysis is the "heart" of an EIS.[160] NEPA's implementing regulations direct the Forest Service and other federal agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives," including appropriate mitigation measures to reduce the potential impacts of the action on the environment.[161]

In defining a "reasonable" range of alternatives, NEPA requires consideration of alternatives "that are practical or feasible" and not just "whether the proponent or applicant likes or is itself capable of carrying out a particular alternative."[162]

4.2.1. Objection: Unreasonable and inaccurate purpose and need statement.

4.2.1.1. Issue

An EIS's "purpose and need" statement must "briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action."[163] "The scope of an alternatives analysis depends on the underlying 'purpose and need' specified by the agency for the proposed action."[164] Accordingly, a purpose and need statement must be

[160] 40 C.F.R. § 1502.14.
[161] *Id.* § 1502.14.
[162] Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,027 (Mar. 23, 1981).
[163] 40 C.F.R. 1502.13.
[164] *League of Wilderness Defs.-Blue Mountains Biodiversity Proj. v. U.S. Forest Serv.*, 689 F.3d 1060, 1069 (9th Cir. 2012).

"reasonable,"[165] and cannot "unreasonably narrow[] the agency's consideration of alternatives so that the outcome is preordained."[166] "Where an action is taken pursuant to a specific statute, the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS."[167]

The FEIS's "purpose and need" statement is unreasonable for two main reasons. First, it abdicates the Forest Service's duty to ensure compliance with all federal laws and regulations. The purpose of federal action should not, as the statement indicates, be to consider approval of Perpetua's proposed use as described in the company's successive proposals while "assuming the proposed uses would be able to be authorized under existing regulatory authorities."[168] The Forest must make its own determination of whether or not Perpetua's proposed use may be authorized under the Mining Act of 1872, the Organic Act and its regulations, including 36 C.F.R. Part 228A, NFMA and its regulations, the Endangered Species Act, treaties, and other laws and regulations.

The "need" statement suffers from the same flaw. According to the FEIS, the need for action is to "[c]onsider approval of Perpetua's 2021 MMP for development of the SGP to mine and mill gold, silver, and antimony deposits that, where feasible, would minimize adverse environmental impacts on NFS surface resources; and ensure that measures are included that provide for mitigation of environmental impacts and reclamation of the NFS surface disturbance."[169] The Forest assumes the proposal satisfies regulatory minimization requirements.

Second, by assuming without inquiry that Perpetua's proposals satisfy all laws and regulations, it turns what should be the development and evaluation of alternatives into a Hobson's choice: two materially similar proposed actions or the no-action alternative, which the Forest has determined it lacks authority to select.

4.2.1.2. Suggested Remedies

The Forest Service must draft a reasonable "purpose and need" statement that considers the full legal framework the agency must apply. It must then re-do its alternatives analysis to evaluate other reasonable, feasible alternative courses of action for achieving the purpose and need.

4.2.1.3. Prior Comments

The Tribe previously commented on the inadequacy of the Forest Service's purpose and need statement for the Project on pages 6-7, 11-12, 38-39, and 73 of its comments on the Forest Service's SDEIS for the Project.

4.2.2. Objection: Failure to consider a reasonable range of alternatives.

4.2.2.1. Issue

[165] *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 865 (9th Cir. 2004).
[166] *Alaska Survival v. Surface Transp. Bd.*, 705 F.3d 1073, 1084 (9th Cir. 2013).
[167] *Westlands Water Dist.*, 376 F.3d at 866.
[168] FEIS at 1-9.
[169] FEIS at 1-9.

As a consequence of the Forest Service's inadequate "purpose and need" statement, the FEIS fails to consider a reasonable range of alternatives. NEPA regulations require the Forest Service to "[r]igorously explore and objectively evaluate reasonable alternatives to the proposed action."[170] While "[t]he agency need not consider every conceivable alternative to a proposed action," it must "consider a reasonable range of alternatives that will foster informed decision making."[171]

The FEIS considers only three alternatives: two nearly identical proposed actions (varying by access route) and a no-action alternative. These are not enough to foster informed decision making. To start, the Forest has not identified or developed, let alone "rigorously explore[d] or objectively evaluate[d]" a less environmentally harmful alternative. To the contrary, the Forest rejected four such alternatives offered by the Tribe: a Nez Perce Treaty Rights Alternative; a No Forest Plan Amendments Alternative; a Project Life Phases Alternative(s); and a No Antimony Production Alternative.

The Forest's rationales for rejecting the alternatives are telling. They reflect the Forest's deeply flawed view of its legal obligations under the Tribe's 1855 and 1863 Treaties with the United States, NEPA, the 1872 Mining Law, and other land management laws, and they rely on the incredible assumption that Perpetua's proposals represent the only feasible means for developing the Project:

- The Forest Service provides no rationale in its response to comments for rejecting the Nez Perce Treaty Rights Alternative. It simply recites its screening criteria.[172]

- The Forest Service's response to the No Forest Plan Amendments Alternative is baffling: after implying, without support, that the Project cannot be modified without meeting the "Project's purpose and need," the Forest Service goes on to state that "[a]s part of the analysis and decision on this Project, the Forest Service explored modifications and measures protective of treaty resources."[173]

- In response to the Project Life Phases Alternative(s), the Forest Service relies unquestioningly on "Perpetua's primary objectives based on professional examination of the mineral reserves, economics, and common sense."[174] Assuming the feasibility of the company's proposal, the Forest Service asserts "[t]here is no need to disregard Perpetua's purpose and need for the Project"[175]—a claim it repeats for the Early Closure Alternative.[176]

[170] 40 C.F.R. § 1502.14(a).
[171] *Id.*
[172] FEIS App. B at B-114.
[173] FEIS App. B at B-115.
[174] FEIS App. B at B-115.
[175] FEIS App. B at B-115; *see also* DROD at 33 (screening alternatives based on the question, "[d]oes the alternative, including a combination of component options, meet the purpose and need of the Stibnite Gold Project?")
[176] FEIS App. B at B-118.

- The Forest Service rejects the No Antimony Production Alternative because "not producing antimony concentrate in certain years of the operations has already been incorporated into the 2021 MMP and the environmental analyses, [so] there is no need to consider a separate alternative."[177] The Forest Service asserts this despite the Tribe's call to consider no antimony production "at any point in the project life cycle."[178]

In rejecting these alternatives, the agency does not define or evaluate technical or economic feasibility. Instead, the FEIS relies entirely and unquestioningly on Perpetua's input and Perpetua's purpose and need. As a result, the FEIS contains just one choice: Perpetua's proposal.

4.2.2.2. Suggested Remedies

The Forest Service must develop, rigorously explore, and objectively evaluate a reasonable range of alternatives, including the environmentally preferable alternative and mitigation measures not already in the proposed alternatives.

4.2.2.3. Prior Comments

The Tribe previously commented on the range of alternatives in its comments on the Forest Service's SDEIS for the Project, beginning on page 11.

4.3. Completeness of NEPA analysis

It is a fundamental requirement that NEPA documentation and analyses be complete. Congress passed NEPA to ensure that the effects of agency actions "will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast."[179] In furtherance of this purpose, NEPA regulations instruct that "Federal agencies shall, to the fullest extent possible . . . [e]ncourage and facilitate public engagement in decisions that affect the quality of the human environment, including meaningful engagement with communities such as those with environmental justice concerns."[180] To foster meaningful engagement, NEPA and its regulations compel agencies to "identify, consider, and disclose to the public relevant environmental information early in the process before decisions are made and before actions are taken."[181]

To this end, an EIS must "provide full and fair discussion of significant effects and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse effects or enhance the quality of the human environment."[182] An EIS is a "disclosure document," but must also be used "in conjunction with other relevant material to plan actions, involve the public, and make decisions."[183]

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[177] FEIS App. B at B-116.
[178] FEIS App. B at B-117.
[179] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348-49 (1989).
[180] 40 C.F.R. § 1500.2(d).
[181] *Id.* § 1500.1(b).
[182] *Id.* § 1502.1(b).
[183] *Id.* § 1502.1(c)

4.3.1. Objection: Failure to complete, disclose, or analyze key aspects of the proposed actions.

4.3.1.1. Issue

The FEIS relies on, yet lacks, key documents which must be disclosed for review and comment, and considered in NEPA analyses. These include:

- Water Resource Monitoring Plan - Water Quality
- Water Resource Monitoring Plan - Water Quantity
- Water Management Contingency Plans
- Fugitive Dust Control Plan
- Fence-Line Dust Control Monitoring Plan, and
- Tribal Access Plan

4.3.1.2. Suggested Remedies

The Forest must disclose the above-listed documents and all other pending or missing information necessary for a full and fair consideration of environmental effects and inform alternatives analysis. Additionally, the Forest must supplement its NEPA analysis to both show its consideration of these materials and allow for Tribal and public participation.

4.3.1.3. Prior Comments

This is the Tribe's first opportunity to comment on these plans being omitted from the FEIS. The Tribe has, however, repeatedly raised the need to see the information to be included in these plans with the Forest through government-to-government communications and interactions.

4.3.2. Objection: The Forest Service has failed to provide adequate information in its FEIS and DROD regarding the types of financial assurance commitments it will seek from Perpetua Resources to assure the Tribe and public that the company and Forest Service will have sufficient resources to address long-term environmental issues that may arise from the Project including, but not limited to: the long-term settlement of waste rock piles and the tailings storage facility ("TSF"), seepage from stormwater drainage channels and sediment ponds, instability in the TSF and other constructed river channels, and effects from climate change.

4.3.2.1. Issue

Under Forest Service regulations, all mining operations on Forest Service land must be conducted to minimize adverse environmental impacts on surface resources; this requirement includes the completion of reclamation at the conclusion of mining operations.[184] In order to ensure reclamation

[184] 36 C.F.R. 228.8(g).

occurs, the Forest Service *may require* a mining operator to provide financial assurance *prior* to the approval of a plan of operations in the form of cash, negotiable securities, a surety bond, or an irrevocable letter of credit.[185] These forms of financial assurance may be required singly or in combination.[186] The Forest Service may also, "require the operator to establish a trust fund to ensure that adequate funds are available for long-term post-closure reclamation activities."[187] NEPA separately requires that agencies take a "hard look" at the means to mitigate against a project's adverse environmental effects.[188] Mitigation of adverse environmental impacts, especially after the cessation of mining operations, is impossible without sufficient financial resources and assurance.

The Forest Service states in the Project's FEIS:

> As part of the approval for the SGP, Perpetua would be required to post financial assurance to ensure that NFS lands and resources involved with the mine operations are reclaimed in accordance with the approved plan of operations and reclamation requirements (36 CFR 228.8 and 228.13). This financial assurance would provide adequate funding to allow the Forest Service to complete reclamation and post- closure operation, including continuation of any post-closure water treatment, maintenance activities, and necessary monitoring for as long as required to return the site to a stable and acceptable condition in the event Perpetua was unable to do so. The amount of financial assurance would be determined in collaboration with the Forest Service and would "address all Forest Service costs that would be incurred in taking over operations because of operator default" (Forest Service 2004). The financial assurance would be required in a readily available bond or other instrument payable to the Forest Service. To ensure the bond can be adjusted as needed to reflect actual costs and inflation, there would be provisions allowing for periodic adjustments in the final plan of operations prior to approval. Calculation of the initial bond amount would be completed following the Record of Decision (ROD) when enough information is available to adequately and accurately perform the calculation. In addition to the Forest Service-required bond, mitigation under Section 404 of the CWA also requires financial assurance.
>
> The IDL would require a bond as part of their cyanidation facility permitting authority and IDEQ would require a bond for the Cyanidation Permit which would then be held by IDL. The IDWR is the state agency responsible for design review and approval of the TSF. IDWR also would require a bond so that the TSF is placed in

[185] *Id.* §228.13(a).
[186] *Id.* § 228.13(a).
[187] *Id.* § 228.13(e).
[188] 42 U.S.C. § 4332(2)(C); 40 C.F.R. §§ 1502.14(3), 1505.2(c), 1505.3(d), 1502.16(a)(7)(8)(10).

> a safe maintenance-free condition upon decommissioning or if abandoned by the owner.[189]

The Forest Service further clarifies in its response to comments on the SDEIS that "[t]he calculation of reclamation costs and estimated financial assurance amounts and mechanisms would be based on *the final approved mine and reclamation plan in the ROD*. That bond amount would be specified in a subsequent Forest Service decision following the ROD."[190] The Forest Service also clarifies that "[r]eclamation cost estimates and financial assurance decisions are conducted by the Forest Service in a separate administrative process outside the NEPA scope. This process coordinates with Idaho State regulatory agencies and their financial assurance requirements"[191] and that [u]ncertainties regarding the duration of water treatment requirements would be incorporated into the reclamation cost estimate."[192] Finally, the Forest Service states in its response to comments that the "Final EIS includes information regarding a *long-term trust* for maintaining restoration and reclamation."[193]

In direct response to the Forest Service's comments on the SDEIS, the Tribe notes that it cannot locate, in either the FEIS or the DROD for the Project, any information regarding a *long-term trust* for maintaining restoration and reclamation. The Tribe further notes that the Forest Service has the authority under 36 C.F.R. 228.13(a) to require a mining operator to provide financial assurance *prior* to the approval of a plan of operations, along with its authority to require a mining operator to establish a trust fund to ensure that adequate funds are available to complete long-term post-closure reclamation activities.[194] According to the FEIS, the Forest Service has, to date, declined to exercise either of these authorities. The Tribe disagrees with this decision. The Forest Service has also declined to adequately disclose in the FEIS relevant details regarding the type and extent of financial assurance it will seek for the Project after issuance of a ROD so that the Tribe can understand and comment upon its adequacy. This omission is meaningful given that, to the Tribe's knowledge, any separate administrative process conducted by the Forest Service outside of NEPA to set financial assurance for the Project will not include public notice and comment.

Financial assurance is an essential element of a proposed mining project and should have been disclosed in the FEIS for the proposed Project, because the viability of the reclamation, closure, and post-closure management is a critical factor in evaluating potential long-term indirect, direct, and cumulative environmental impacts of the Project and in determining whether mitigation for the proposed Project can be considered fully protective of environmental resources. Adequate disclosure and analysis of financial assurance for the Project could make the difference between the development of a project that is adequately managed over the long-term by Perpetua Resources and an unfunded or underfunded contaminated site that becomes a public liability that must be, again, addressed under the Comprehensive Environmental Response, Compensation, and Liability Act.

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[189] FEIS at 2-92 – 2-93 (emphasis added).
[190] FEIS App. B at B-48 (emphasis added).
[191] FEIS App. B at B-75.
[192] FEIS App. B at B-77.
[193] FEIS App. B at B-93 (emphasis added).
[194] 36 C.F.R. § 228.13(e).

After reviewing the FEIS and DROD, the Tribe is still unsure what resources will be available, in what form, to deal with and mitigate long-term environmental impacts from the Project. The FEIS and DROD should have contained adequate details regarding the type of financial assurance commitments (e.g., for reclamation and long-term operations and maintenance) the Forest Service will seek from Perpetua Resources, as well as meaningful assurances that a proper financial instrument will be established, including the establishment of a trust fund, to ensure that adequate funds are available if and when they are needed. Only with this information, can the Tribe and public truly understand and comment on the Project's long-term environmental impacts.

Needless to say, adequate financial assurance for this Project is *very* important to the Tribe especially for the Project's measures and controls that will require long-term, post-closure operations and maintenance to protect water quality.

4.3.2.2. Suggested Remedies

The Forest Service should issue a supplemental EIS and revised DROD that requires Perpetua Resources to provide financial assurance for the Project *prior to* the Forest Service approving their plan of operations and that requires Perpetua Resources to establish a *trust fund* to ensure that adequate funds are available for long-term, post-closure reclamation activities. The Forest Service should also include in the supplemental EIS more details regarding the type and amount of financial assurance it will require so that the Tribe and public can comment on their sufficiency for addressing the environmental issues that may occur at the Project site. If the Forest Service declines to adopt these suggested remedies, the Tribe requests that the Forest Service include the Tribe, through government-to-government consultation, in its subsequent administrative process to determine financial assurance for the Project, so that the Tribe can comment on and discuss its adequacy.

4.3.2.3. Prior Comments

The Tribe raised its concerns related to financial assurance for the Project on pages 32-33 and 136 of its January 5, 2023, comments on the Project's SDEIS.

5. Fishery and Aquatic Resources

The Tribe must preface its aquatics- and fisheries-related objections with its position that the impacts to Endangered Species Act ("ESA")-listed species, resident fish and other aquatic species from the Project will be unacceptable.

Chinook salmon (*Nacòx*) are intimately interwoven into the Tribe's culture and religion and continue to be a critical fishery for subsistence harvest. It cannot be sufficiently emphasized how important Chinook salmon are to the Tribe. Sediment and pollutants from historic mining activities at the Stibnite site extirpated Chinook salmon from the headwaters of the East Fork South Fork Salmon River ("EFSFSR") in the 1940s.[195] The Tribe has been actively recovering

[195] National Marine Fisheries Service, *ESA Recovery Plan for Snake River Spring/Summer Chinook Salmon and Snake River Basin Steelhead: Appendix C, Idaho Management Unit*, NMFS West Coast Region, Portland, Oregon, November 2017.

Chinook salmon in the EFSFSR watershed since the mid-1990s and utilizing this watershed since time immemorial.

The South Fork Salmon River Major Population Group, which includes the EFSFSR and Johnson Creek spring/summer Chinook spawning aggregates (collectively referred to as the East Fork South Fork Salmon River population) are at a high risk rating for abundance and productivity and a low risk for spatial structure and diversity.[196] Habitat concerns in the EFSFSR exist and would be exacerbated by Project activities. Sediment remains a concern for the fish populations due to landslides and wildfires, which have been documented to have delivered excessive sediment to streams in these populations in the last 5 years. High stream temperatures are a limiting factor in these populations.[197] Recommended future actions by National Marine Fisheries for reducing limiting factors that impede the recovery of Chinook salmon include reducing and preventing sediment delivery, improving riparian function and improving water quality, which this Project jeopardizes as detailed below.[198]

The Tribe is particularly concerned with the following impacts to Chinook salmon from the Project:

- The adult migration and spawning life stages would experience a reduction in habitat due to the thermal requirement for Chinook salmon. There would be a net decrease in thermally suitable spawning habitat both upstream and downstream from the Yellow Pine pit lake cascade barrier during operations and post-closure due to a slightly warmer 7-day average daily maximum water temperatures.[199] And these values would likely be higher if climate change had been factored into the Stream and Pit Lake Network Temperature model.[200] Climate change would be expected to increase water temperatures from baseline estimates at the end of the mine operations by as much as 0.1°C-2°C.[201] Because Chinook salmon spawn in late August, when stream temperatures are their highest and flows at their lowest, they are particularly susceptible to stream temperature increases from the Project. An example of this can be found in Table 4.12-2, the stream section of Meadow Creek upstream of the EFMC during summer months in mine year 27 where maximum weekly water temperatures reach 21.7 °C. This temperature meets the lethal temperature (1 week exposure) criteria by the Environmental Protection Agency ("EPA") for salmonids.[202] This river reach has documented Chinook salmon spawning from fish outplanted by the Tribe and Idaho Department of Fish and Game. The ability of the Tribe and Idaho Department

[196] NOAA, *2022 5-Year Review: Summary & Evaluation of Spring and Summer Chinook Salmon*, National Marine Fisheries Service West Coast\Region.
[197] National Marine Fisheries Service, *ESA Recovery Plan for Snake River Idaho Spring/Summer Chinook Salmon and Snake River Basin Steelhead: Appendix C, Idaho Management Unit*, NMFS West Coast Region, Portland, Oregon, November 2017.
[198] National Marine Fisheries Service, *ESA Recovery Plan for Snake River Idaho Spring/Summer Chinook Salmon and Snake River Basin Steelhead: Appendix C, Idaho Management Unit*, NMFS West Coast Region, Portland, Oregon, November 2017.
[199] FEIS at 4-387.
[200] FEIS at 4-386.
[201] FEIS at 4-365.
[202] U.S Environmental Protection Agency. 2003. *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards.* EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.

of Fish and Game to continue to outplant will be limited by these stream temperatures. Climate change is happening and should be considered in stream temperature modeling.

- Changes to water chemistry from this Project have the potential to impact adult and juvenile life history stages of Chinook salmon and particularly those present in Sugar Creek, a key EFSFSR tributary known to support spring/summer Chinook spawning and rearing. Sugar Creek is currently 303(d) listed in the Clean Water Act as impaired by the state of Idaho because of arsenic exceedance for Idaho's human health criterion and mercury exceedance for aquatic life and Salmonid Spawning criterion.[203] The FEIS predicts an increase over baseline conditions for mercury, arsenic, and antimony concentrations in West End Creek, which flows into Sugar Creek, and an increase in mercury in Sugar Creek.[204] A study conducted by USGS in Sugar Creek found that methylmercury concentrations in bull trout and riparian spiders were sufficiently high to affect humans, birds and piscivorous fish.[205]

- Alterations to streams channels, a reduction in surface water and groundwater interactions and a reduction in flow will negatively impact Chinook salmon. Steam flow reductions will decrease fish productivity during mine operations.[206] The FEIS notes that approximately 430 acres will contain geosynthetic liners that will inhibit groundwater recharge across the areas of their footprint and, thereby, increase surface water runoff from these areas while potentially lowering groundwater levels locally.[207] Mine-induced drawdown resulting from proposed dewatering and water production activities is predicted to cause a reduction in groundwater levels in the analysis area. If the flow from these seeps and spring relies on groundwater from an aquifer experiencing drawdown, that reduction in the groundwater levels could reduce the surface water discharge resulting in potential reductions to the length of flow reach, rate of flow, and corresponding reduction in the associated riparian vegetation.[208] Placing a liner under Meadow Creek, where outplanted Chinook salmon are documented to spawn, will disconnect the stream from cooler groundwater in the summer and warmer groundwater in the winter—which keeps the eggs from freezing.

- For the first two years of the mine, there will be increased Project-related traffic along Johnson Creek, increasing the chance of a fuel or chemical spill into streams with Chinook salmon. A fuel or chemical spill into a stream with Chinook salmon could offset the Tribe's restoration efforts and Tribal members' ability to harvest treaty-reserved fish in this very popular fishing location for numerous years.

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[203] Idaho Department of Environmental Quality 2018/2020 Integrated Report, Appendix A: Clean Water Act Section 305(b) List and Section 303(d) List at 332.
[204] FEIS at 4-380.
[205] Kraus, J.M., Holloway, J.M., Pribil, M.J., McGee, B.N., Stricker, C.A., Rutherford, D.L.,& Todd, A.S.(2022). Increased Mercury and reduced insect diversity in linked stream-riparian food webs downstream of a historical mercury mine. *Environmental Toxicology*. Volume 00, pp.1-15.
[206] FEIS at 4-390.
[207] FEIS at 4-172.
[208] FEIS at 4-174.

- Increases in fine sediment delivered to streams has been shown to negatively alter habitat for Chinook salmon and steelhead spawning and rearing in the South Fork Salmon River.[209] The Project's own GRAIP Lite sediment analysis concluded that the Burnt Log Route, Meadow Creek Lookout Road, Thunder Mountain Road, and on-site haul and access roads all increased sediment delivery to streams.[210]

- Fish handling during dewatering activities and trap and haul of Chinook salmon will have associated mortality impacts.

Similar to Chinook, steelhead (*Hey-ey*) are important treaty resources. The South Fork Salmon River and its component watersheds comprise one of only four drainages in the Columbia River Basin that support viable populations of wild B-run steelhead.[211] Much of the research and many of the watershed restoration actions taken by the Tribe are implemented to improve steelhead viability. The steelhead Salmon River Major Population Group is not viable and the recovery of individual populations remains uncertain. Updated, population-level abundance estimates of steelhead (last five years) highlight recent sharp declines. The South Fork Salmon River distinct population segment has a moderate risk rating for abundance and productivity and a low risk rating for spatial structure and diversity.[212]

The Tribe has repeatedly expressed concerns with the following impacts to steelhead from this Project:

- Changes to water chemistry particularly to those steelhead spawning and rearing in Sugar Creek for the reason cited above for Chinook.

- FEIS Table 4.12-10 highlights that optimal thermal requirements for Steelhead below the Yellow Pine Pit decrease from baseline over the life of the mine.

- Steelhead are particularly impacted by flow reductions that decrease productivity. Negative percent changes to flow-productivity are greatly impacted by mine operations in the EFSFSR upstream from Sugar Creek (-11.2 percent) and in Meadow Creek (-13.6 percent).[213]

- Steelhead handling during Project-related dewatering activities and trap and haul will have associated mortality impacts.

[209] Idaho Department of Environmental Quality 2018/2020 Integrated Report, Appendix A: Clean Water Act Section 305(b) List and Section 303(d) List at 332.
[210] Tetra Tech, Inc. 2024. Stibnite Gold Project GRAIP Lite Analysis (RFAI-146).
[211] USDA. 2009. Biological Assessment for the Potential Effects of Managing the Payette National Forest in the SF Salmon River Section 7 on Snake River Spring/Summer and Fall Chinook Salmon, Snake River Steelhead and Columbia River Bull Trout. U.S. Department of Agriculture, Forest Service, Payette National Forest.
[212] NOAA. 2022 5-Year Review: Summary & Evaluation of Snake River Steelhead. National Marine Fisheries Service West Coast Region.
[213] FEIS at 4-396.

Out of the three ESA=listed fish species in the Project area, none will be impacted as greatly as bull trout (*Islam*) due to habitat loss and increased stream temperatures. Bull trout are found throughout the Project area, above and below the Yellow Pine Pit. The EFSFSR and its tributaries are a stronghold for bull trout.[214] The EFSFSR is an important genetic refuge because, unlike other areas in the SFSR watershed, brook trout are not present in the EFSFSR, eliminating the risk of hybridization. Bull trout are mainly found in cold streams; water temperature above l5°C limits bull trout distribution.[215]

The Tribe is concerned with the following impacts to bull trout from this Project:

- Changes to water chemistry particularly to those bull trout spawning and rearing in Sugar Creek for the reason cited above for Chinook and Steelhead.

- Table 4.12-13 shows that all life stages experience a reduction in habitat that meets the thermal requirements needed by bull trout. These reductions are either due to water temperatures that are two high or low for a specific life stage, or due to limited access to suitable habitat.[216] There would be a net loss in thermally suitable bull trout habitat due to water temperatures exceeding thermal requirements for spawning and rearing. In Table 4.12-2, which summarizes maximum weekly water temperatures, Meadow Creek upstream of EFMC in mine year 27 reaches 21.7 °C; this temperature meets the lethal temperature (1 week exposure) criteria by EPA for bull trout juvenile rearing.[217]

- Upper Meadow Creek, which currently has documented bull trout occupancy, will have a net loss in Critical Habitat because of the diversion around the TSF, and later by the completion of the TSF that will cover the existing Meadow Creek. The proposed constructed stream on the TSF will become a gradient barrier to upstream and downstream fish passage.[218]

- Changes in flows would result in a net decrease in bull trout habitat in Meadow Creek and the EFSFSR during the life of the mine.[219]

- It is shortsighted to assume that there will be a metapopulation of bull trout present in the South Fork Subbasin in the next 20-114 years that is robust enough to repopulate the Stibnite Lake, especially considering the likelihood that there will be thermal barriers blocking volitional movement in the proposed mine areas.

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[214] Hogen, D.M. and D.L. Scarnecchia. 2006. Distinct fluvial and adfluvial migration patterns of a relict charr, *Salvelinus confluentus*, stock in a mountainous watershed, Idaho, USA. Ecology of Freshwater Fish l5(4): 376-387.
[215] Fraley, J.J and B.B. Shepard. 1989. Life history, ecology and population status of migratory bull trout (*Salvelinus confluentus*) in the Flathead Lake and River System, Montana. Northwest Science 63(4):133-143.
[216] FEIS at 4-404.
[217] U.S Environmental Protection Agency. 2003. *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards.* EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.
[218] FEIS at 4-407.
[219] FEIS at 4-408.

- Bull trout will be adversely affected through handling during Project-related fish salvage and trap and haul activities. These effects will include injury and mortality.[220]

Westslope Cutthroat trout (*Wawa Lam*) are currently designated as a "sensitive" species by the Forest Service. Westslope Cutthroat trout are broadly distributed throughout the SFSR, although they currently occupy only 85% of their potential historic range.[221]

The Tribe is primarily concerned with the following impacts to Westslope Cutthroat trout from this Project:

- Westslope Cutthroat trout are found throughout Project above and below the Yellow Pine Pit, and, similar to bull trout, will suffer habitat loss from mining operations.

- Resident fish, including Westslope Cutthroat trout, will have more isolated populations without the ability to move freely between Project area streams.

- In the Meadow Creek drainage where Westslope Cutthroat are found, there will be a large decrease in available habitat due to the piping of Meadow Creek around the tailing storage facility footprint. Upper Meadow Creek would remain blocked in perpetuity due to the high-gradient stream segments flowing off the TSF.[222]

- Westslope Cutthroat trout will be adversely affected through handling during fish salvage and trap and haul activities.

5.1. Mitigation and Minimization

5.1.1. Objection: Failure to disclose and minimize the full environmental impacts of the Project on Meadow Creek fish populations.

5.1.1.1. Issue

The geomorphic (e.g., valley width, gradient) and stream flow conditions in Meadow Creek support more high quality fish spawning and rearing habitat than any other stream in the Project area. Meadow Creek is currently home to three of the four fish species of concern; resident bull trout, Westslope Cutthroat trout, and Chinook salmon. Bull trout and Westslope Cutthroat trout have survived in the lower and upper Meadow Creek reaches since connectivity with their downstream population was blocked by the creation of the Yellow Pine Pit ("YPP") in the 1930's. The YPP also blocked Chinook salmon from accessing Meadow Creek; however, since 1998, the Nez Perce Tribe and Idaho Department of Fish and Game have trapped and hauled fish from the South Fork Salmon River, when surplus hatchery fish were available, and outplanted them in Meadow Creek. The outplanted Chinook salmon have repeatedly been documented by the Nez

[220] U.S. Fish and Wildlife Serv. 2024. Stibnite Gold Project Biological Opinion ("SGP FWS BO") at 199.
[221] Thurow, R. F., Lee, D. C., & Rieman, B. E. (1997). Distribution and Status of Seven Native Salmonids in the Interior Columbia River Basin and Portions of the Klamath River and Great Basins. North American Journal of Fisheries Management, 17, 1094-1110.
[222] FEIS at 4-407.

Perce Tribe as spawning and rearing successfully in the lower reaches of Meadow Creek.[223] These supplemented fish are critical to the recovery of Chinook salmon in the EFSFSR.

It should also be noted, the fourth species of concern, *O. mykiss* (Steelhead), has been documented multiple times upstream of YPP at different locations and in different years. Steelhead parr were observed upstream of YPP during snorkel surveys by the Idaho Department of Fish and Game in 1999 and 2002 and by Payette National Forest in 1994, 2002, 2004, and 2006. Additionally, eDNA samples upstream of YPP have confirmed the presence of *O. mykiss* by the Nez Perce Tribe in 2014, and by the Payette National Forest in 2014 and 2016. Although *O. mykiss* observations are inconclusive with respect to whether the anadromous form of *O. mykiss* is present or resident form (*O. mykiss gairdneri* or steelhead redband trout) is present, the FEIS failed to fully investigate their presence. Given the number of observations across surveyors and years, it's reasonable to expect a small number of steelhead redband trout still occupy the streams upstream of the YPP.

The selected Project alternative will remove existing habitat and permanently change Meadow Creek's ability to support fish through multiple proposed actions:

- The tailings storage facility ("TSF") and buttress will displace bull trout and Westslope Cutthroat trout from upper Meadow Creek.
- The TSF buttress will eliminate fish population connectivity between the lower and upper reaches of Meadow Creek—permanently blocking fish passage.
- The TSF will increase Meadow Creek water temperatures post-operations until stream restoration and revegetation efforts on top of the TSF are well established and begin to shade the stream.
- The Meadow Creek low-flow pipe around the TSF will eliminate fish habitat in the piped reach and will block fish access to upstream habitat areas.
- The Meadow Creek low-flow pipe inhibits primary production and aquatic insect growth, negatively affecting downstream fish by eliminating drift-type food sources.
- Reduced stream-flows caused by groundwater and dewatering wells will decrease the available fish spawning and rearing habitat, and lower Chinook salmon productivity beyond the disclosed amount.[224]
- Lining the lower reach of Meadow Creek will permanently disconnect the surface flow from groundwater negatively impacting stream temperatures and egg and fry overwinter survival.

Within the Project area, Meadow Creek contains the most robust populations of fish, maintains the highest potential to support quality habitat, and has benefitted from multiple restoration actions to clean up previous mining-related problems.[225] The preferred alternative and proposed actions will severely and permanently change the entire Meadow Creek system causing unacceptable environmental impacts such as, permanently blocking fish access to the upper drainage, increasing

[223] Rabe, C. D., Nelson, D. D., & Hodsdon, T. (2017). *Status and Monitoring of Natural and Supplemented Chinook Salmon in Johnson Creek, Idaho* [Annual Report]. Nez Perce Tribe Department of Fisheries Resources Management.
[224] FEIS at 4-388 and 4-396.
[225] Arkle, R. S., & Pilliod, D. S. (2021). Stream Restoration Is Influenced by Details of Engineered Habitats at a Headwater Mine Site. *Diversity*, *13*(2), Article 2. https://doi.org/10.3390/d13020048

stream temperatures, and disconnecting groundwater connectivity. Additionally, the FEIS fails to address and disclose the true impacts to Meadow Creek fish communities by ignoring the additive effect of project actions. Moreover, the FEIS fails to include or evaluate alternative TSF locations in potentially non-fish bearing, or streams with less fish occupancy and habitat potential, which would ultimately minimize environmental impacts across the Project area.

5.1.1.2. Suggested Remedies

The Forest Service should prepare a supplemental EIS that:

- Evaluates alternate TSF locations and includes an additive effects analysis that accounts for all Project activities simultaneously to truly understand the full impact to fish within the Project area;
- Evaluates the additive impact of piping the upper Meadow Creek reach on habitat loss and the potential decrease in fish productivity from the loss of macroinvertebrate drift; and
- Evaluates the impact of lining the lower reach of Meadow Creek on stream temperatures, egg and fry overwinter survival, and population productivity, combined with the potential surface water loss from ground water and dewatering wells.

5.1.1.3. Prior Comments

The Tribe's concerns regarding critical fish habitat in Meadow Creek were discussed in its SDEIS comments starting on page 95.

5.2. Ongoing Restoration Efforts

5.2.1. Objection: Failure to evaluate or analyze the impact to fisheries from disrupted fishery restoration efforts conducted by the Nez Perce Tribe.

5.2.1.1. Issue

NEPA requires that federal agencies take a "hard look" at the environmental consequences of proposed actions. The FEIS does not evaluate or analyze the impact to fisheries from disrupted fishery restoration efforts conducted by the Nez Perce Tribe from the Project during mine operations. This was brought forth in the Tribe's SDEIS comments, which specifically noted that the Forest Service needs to adequately address/analyze the impacts of Project disruptions on the Tribe's efforts in hatchery supplementation, fishery research, and watershed restoration in the EFSFSR.[226] The FEIS needs to recognize that Project models and estimates based on empirical Chinook salmon data will change when the Tribe's outplanting and restoration efforts are hindered by the Project. An example of hindered outplanting efforts occurs when the Tribe is unable to outplant Chinook salmon in Meadow Creek due to a liner being placed under this stream to prevent the loss of water during the Hangar Flats Pit creation.

[226] NPT SDEIS comments at 91.

This Project actions will not only negatively impact ESA-listed fish species in the immediate mine site area, but will impede the Tribes ongoing restoration, research, and fish production activities throughout the entire SFSR watershed, examples of which are listed below. The Tribe's Department of Fisheries Resource Management ("DFRM") started an office in McCall, Idaho in the mid-1990s to focus on issues in the SFSR watershed; originally the EFSFSR and Johnson Creek. The DFRM spends approximately $2.5 million annually restoring Chinook salmon populations and habitat in the EFSFSR and SFSR. The Tribe's DFRM restoration activities within the SFSR watershed include watershed restoration, hatchery supplementation, and fishery research.

A. Disruptions to the Tribe's watershed restoration efforts from the SGP:

In the DROD, the Forest Service states one of the reasons for not selecting the No Action Alternative is the existing open bit barrier would continue to block volitional fish access to habitat.[227] In 2007, the Tribe's Watershed Division submitted a funding proposal to the Bonneville Power Administration during the 2007-2009 Northwest Power and Conservation Council Fish and Wildlife Provincial Review to address the fish passage barrier created by the Yellow Pine Pit on the EFSFSR. The proposal was titled "Reestablish Connectivity and Restore Fish Habitat in the Upper East Fork of the South Fork Salmon River." The proposal sought money to reestablish fish passage through the 30-foot-tall cascade above the Yellow Pine Pit and to improve one mile of fish habitat in its EFSFSR U&A above the Yellow Pine Pit. Bonneville Power Association awarded the Tribe funding totaling almost $300,000 to start developing designs for fish passage through the cascade above the Yellow Pine Pit. The patent holder at the time wrote a letter granting permission to proceed with the fish passage project. This fish passage proposal was supported by the Forest Service District Ranger, as documented in a letter dated December 13, 2005, to the current patent holder. Additional support letters from IDF&G and IDEQ were also submitted for this proposal.

Before the Tribe could implement the fish passage project, however, the patent holder, Frederick Bradley, for the land under this reach of the EFSFSR entered into a lease-to-purchase option with one of Perpetua's predecessor corporations. Because of Perpetua's predecessor corporation's desire to re-mine the Yellow Pine Pit and their unwillingness to provide consent for the project, reestablishing fish passage past the Yellow Pine Pit has been delayed. Additional mining is not needed to accomplish the Tribe's volitional fish access project design for the Yellow Pine Pit. Had the current patent owner supported the Tribe's project, it could have been reestablished years ago.

B. Disruptions to the Tribe's fisheries research efforts from the SGP.

The FEIS notes that the Tribes fisheries restoration program operates in the vicinity of the Project boundary along Johnson Creek, however it states, with no analysis, that increased traffic and sediment would be negligible with only short-term effects.[228] The Tribe's research projects will be negatively impacted by the proposed Project. In particular, the Johnson Creek Artificial Propagation and Enhancement ("JCAPE") project's daily

[227] DROD at 31.
[228] FEIS at 4-655.

operations will be negatively impacted by the heavy Project traffic for the first two years (construction phase) of the mine when mine traffic is using the Johnson Creek Road to access to the mine site.

C. Disruptions to the Tribe's fishery production efforts from the SGP.

The FEIS did not analyze impacts to Chinook salmon populations in the EFSFSR due to Project-related disruptions to the Tribe's and IDF&G's outplanting of Chinook salmon in Meadow Creek. During the 1940s, mining operations at the Stibnite site resulted in the extirpation of a genetically distinct subpopulation of summer Chinook salmon in the EFSFSR. Conditions stemming from these historic mining operations continue to impact Chinook salmon in the EFSFSR. These conditions include elevated water temperatures, lack of riparian vegetation, excess sedimentation, fish passage barriers, water quality degradation, and stream channel alterations. Further, the Yellow Pine Pit still blocks Chinook from accessing historic spawning grounds in Meadow Creek and other headwater reaches of the EFSFSR.

In an effort to mitigate these effects and supplement salmon returns in the EFSFSR, the Tribe and IDF&G have outplanted roughly 4,000 adult Chinook salmon in Meadow Creek since 2000. In Appendix B, "Response to Public Comments on the SDEIS and Response to Public Concerns on the 2020 DEIS," Forest Service response comment 267 states that, "the SGP is not anticipated to hinder outplanting efforts by the Tribe." This is not correct. During the proposed 20-year mine operation plan, the Tribe and IDF&G will undoubtedly be precluded from outplanting Chinook salmon in Meadow Creek when Perpetua is placing a liner under Meadow Creek to retain flows during construction of the Hangar Flats Pit. In years where outplanting does not occur, there will be a reduction in adult Chinook Salmon returning to the EFSFSR. The U.S Forest Service notes that the Tribe's ability to harvest and manage its traditional fish resources in the Project area will be impacted.[229] However, the FEIS does not analyze how the Tribe's ability to continue to release Chinook in Meadow Creek will be affected, or the extent of harvest impacts within the EFSFSR. The Project used Chinook salmon numbers in the Project area in numerous estimates, to predict fish numbers in the Yellow Pine Pit. These numbers are based largely on the number of progeny from previously outplanted Chinook.

5.2.1.2. Suggested Remedies

The Forest Service must conduct a supplemental NEPA analysis to adequately address/analyze the impacts to fisheries stemming from Project-related disruptions to the Tribe's hatchery supplementation efforts, fishery research, and watershed restoration in the EFSFSR. The FEIS needs to recognize that Project models and estimates based on empirical Chinook salmon data will change when the Tribe's and IDF&G's outplanting efforts are hindered by Project activities. The Forest Service should also recognize in the ROD that there are alternative ways to achieve volitional fish passage past the Yellow Pine Pit that do not involve remaining the site.

[229] Tribal Rights and Interests Specialist Report at 32.

5.2.1.3. Prior Comments

The Tribe commented on the importance of analyzing the impacts of Project disruptions on the Tribe's hatchery supplementation efforts, fishery research, and watershed restoration in the EFSFSR, in its SDEIS comments starting on page 90.

5.3. Changes to Fish Habitat

5.3.1. Objection: Failure to analyze the impact to fisheries from an altered physical stream structure.

5.3.1.1. Issue

Physical alterations to stream structure from the Project will result in impacts to fish, including Chinook salmon, steelhead, and bull trout.[230] Mine operations such as open pits, pit lakes, diverting the EFSFSR into a fish tunnel, diverting Meadow Creek into pipes, placing a liner under Meadow Creek, stockpiling waste rock and growth media (soil), vegetation removal, and construction of the TSF will alter the physical stream structure and reduce fish habitat complexity and connectivity. Relative to baseline condition, construction during the active life of the mine will result in a 4 percent loss of EFSFSR stream channel length above the Sugar Creek confluence by Mine Year 12, based on total estimated stream length. Post mine closure, there is predicted to be a 4 percent increase in total channel length relative to baseline conditions.[231] Fishery biologists often talk about quality aquatic habitat in terms of the 4 Cs that are critical to salmonid fish (cold water, clean water, complex habitat, and connected streams). Using total channel length as the metric to show improvements to the altered physical stream structure misses many of the important components of quality fish habitat. Using Meadow Creek as an example, a long sinuous stream channel will be built on the TSF showing an increase in channel length, but Upper Meadow Creek fish connectivity would remain blocked due to the high-gradient stream segments flowing off the TSF.[232] A liner placed under Meadow Creek will cause stream flows and temperature to be impacted. A gain in stream channel length, therefore, does not necessarily translate to usable habitat for fish. Better habitat metrics should be included to quantify altered physical stream structure.

It is unacceptable that all Project area streams (except Sugar Creek) are being placed into a pipe or tunnel so this proposal can proceed. Any section of stream placed into a pipe or tunnel offers no habitat for fish species listed at the site. Permanent fish relocation occurs as a result of the tailings storage facility in Meadow Creek. The EFSFSR tunnel is another permanent fish relocation and river alteration. Fiddle Creek, which is fish-bearing with threatened bull trout, would be routed into a culvert under a growth media stockpile. Hennessy Creek would be diverted in a pipe and routed to Fiddle Creek. West End Creek, which is also fish-bearing with threatened bull trout, will be diverted into a clean water diversion for 1.5 miles; this is a lined ditch and not conducive to quality fish habitat. Garnet Creek would be re-routed in a riprap channel through a

[230] USFS. Stibnite Gold Project Biological Assessment ("SGP BA") at 385.
[231] *Id.* at 387.
[232] FEIS at 4-407.

culvert during operations. Midnight Creek would be rerouted for 0.3 miles, then piped under roads before it enters the fish tunnel.[233]

The EFSFSR would be rerouted into a tunnel nearly a mile long to divert the river away from where the proposed Yellow Pine pit would be dug. This tunnel would allow volitional fish passage upstream at quite an ecological cost, provided it passes fish at all. The loss of stream biota, fisheries habitat, impaired riparian and stream function in this segment for 20 plus years in exchange for a fishway with artificial lighting, flow control, fish salvage, and connectivity to impacted upstream water quality and habitat seems like a bad trade off. The quality of habitat in a post-mining, reestablished EFSFSR channel across the Yellow Pine pit is also in question due to the fact that the channel will be lined, preventing river interactions with groundwater. Riparian cover over this stretch of new river will also take decades to establish and to provide shade. The final variable is that ongoing exploration could extend the life of the mine and of various project components with real world effects on fish.

Touting adaptive management is only as good as the "clearly identified outcomes,"[234] which are difficult to predict in such a large and complex mining operation as the proposed Stibnite Gold mine. Although the stream "enhancements" and restoration, such as restoring passage at the EFSFSR box culvert,[235] are touted as positive habitat improvements, the timeframe for completion of these restoration components is uncertain if continued exploration extends the mine life. Efforts such as riparian restoration may take decades to become established due to a harsh growing environment. And, some restored stream segments may not ever become suitable aquatic habitat with the cold, clean, complex, and connected habitat these fish need to survive.

5.3.1.2. Suggested Remedies

The impacts to aquatic organisms from altered physical stream structure needs to be analyzed based on habitat quality metrics for fish and not just stream channel length. A supplemental EIS should be completed and include greater analysis on the impacts to fish from altered physical stream structure.

5.3.1.3. Prior Comments

The Tribe commented on impacts to altered physical stream structure in its SDEIS comments on the Project starting on page 100.

5.3.2. Objection: FEIS fails to analyze and explain the full potential impacts to fish resources because of stream flow reductions.

[233] SGP BA at 388.
[234] Brown and Caldwell. 2021. Fish and Aquatic Resources Mitigation Plan at 5-29.
[235] SGP BA at B-1.

5.3.2.1. Issue

The Stibnite Gold Project plans to divert approximately 9.6 cubic feet per second (cfs) of water for mining operations, with an annual storage volume of 600 acre-feet.[236] The Project will combine groundwater and surface water diversion to maintain ore processing and mine operations. This diversion is expected to cause significant impacts to stream flows, particularly affecting the EFSFSR and Meadow Creek during mine operations. Stream flow reductions are predicted to range from 6% to 36% in various affected areas.[237] The most severe reductions in stream flows occur in Meadow Creek at 11-36%, while slightly smaller reductions exist in the EFSFSR with flows upstream of Sugar Creek decreasing by 7-25% and downstream of Sugar Creek decreasing by 6-20%. The size of proposed stream flow reductions will directly impact fish habitats in the EFSFSR and Meadow Creek.[238]

The EFSFSR, downstream and upstream of Sugar Creek, contains important juvenile rearing habitat and is a passage corridor for adult fish migrating to spawning areas in the upper headwaters. Stream flow reductions in the EFSFSR below Sugar Creek will reduce juvenile bull trout rearing habitat by 45%, while juvenile habitat upstream of Sugar Creek will be reduced by 87%.[239] Habitat reductions, as they relate to changes in streamflow, for juvenile Chinook salmon and steelhead were not included in the FEIS. Impacts to fish passage through the upstream and downstream reaches (i.e., upstream and downstream of Sugar Creek) of the EFSFSR, as a function of stream flow reductions, were also not included in the FEIS evaluation.

Sufficient streamflow to enable fish passage in the EFSFSR is of major concern. Flows in the EFSFSR downstream of the confluence with Sugar Creek are expected to decrease up to 20%. ESA-listed Chinook salmon returning volitionally through this downstream reach of the EFSFSR to spawn naturally in Sugar Creek will be impacted if summer low-flows are decreased by 20%. Additionally, decreasing EFSFSR flows upstream of Sugar Creek by 25% will reduce the likelihood of fish passing the natural stream reach below the tunnel successfully, and will decrease flows in the tunnel to levels out of compliance with NOAA Fish Passage Criteria.[240] Fish passage through the natural stream reach and the proposed tunnel will require sufficient flows. Limited or no evaluation of the necessary flows to maintain passage in the FEIS is not acceptable.

Meadow Creek contains adult spawning and juvenile rearing habitat for ESA-listed Chinook salmon, steelhead, and bull trout, and a sensitive species of concern, Westslope Cutthroat trout.[241] Meadow Creek is also expected to experience the greatest reduction in stream flows, which will result in a 90% loss of adult bull trout habitat[242] and almost total loss of Westslope Cutthroat trout

[236] FEIS at 4-177.
[237] FEIS at 4-404 and 4-405.
[238] Duffin, J., Yager, E. M., Buffington, J. M., Benjankar, R., Borden, C., & Tonina, D. (2023). Impact of flow regulation on stream morphology and habitat quality distribution. *Science of The Total Environment*, *878*, 163016. https://doi.org/10.1016/j.scitotenv.2023.163016.
[239] FEIS pg 4-405.
[240] NMFS. 2022. *NOAA Fisheries West Coast Region Anadromous Salmonid Design Manual*. NMFS, WCR, Portland, Oregon.
[241] FEIS Figure 4.12-2
[242] FEIS at 4-414

habitat,[243] as determined through the evaluation of weighted usable area (i.e., PHABSIM).[244] The FEIS did not include a similar analysis to evaluate habitat loss for Chinook salmon and steelhead despite data being available from the same bull trout and Westslope Cutthroat trout studies to do so.[245] The Figure below shows a weighted usable area analysis for Chinook salmon using data collected by the USFS in 1990. Weighted usable area decreases for all Chinook salmon life stages as flows decrease, with the model predicting a similar 90% loss of adult and spawning Chinook salmon habitat for expected reductions.

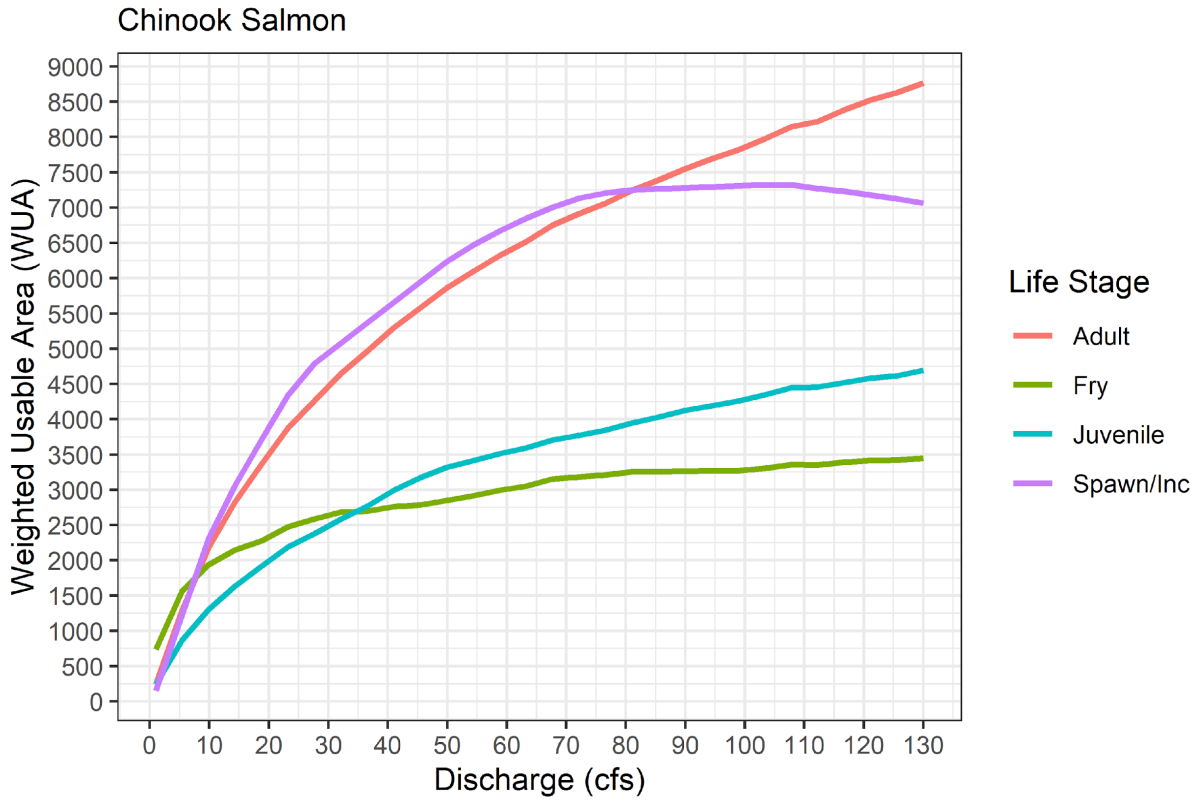

Figure Above: Estimates of weighted usable area at varying levels of discharge for four life stages (adult holding, fry, juvenile, and spawning/incubation) of Chinook salmon in a section of lower Sugar Creek, approximately one half mile upstream from its confluence with the East Fork South Fork Salmon River. Data collected by USFS 1990.

The reported and unreported impacts to fish habitat from streamflow reductions is severe. More alarmingly, however, the DROD did not limit water diversion rates and the FEIS did not include an evaluation across the full range of potential diversions for each stream reach. Instead, the FEIS evaluated the 9.6 cfs diversion as occurring across multiple locations, thus spreading impacts across Project area stream reaches. Impacts to fish habitat could be much greater than reported if the full proposed water diversion occurs at a single location, which is possible. For example, if the full water diversion was removed from the dewatering and groundwater wells in the Meadow

[243] FEIS at 4-410
[244] FEIS at 4-404 and 4-409
[245] USDA Forest Service Sugar Creek Instream Flow Evaluation - 7/26/1990 & 7/30/1990

Creek area, the stream could become dewatered by lower groundwater elevations and eliminating upwelling, seeps, and springs.[246]

5.3.2.2. Suggested Remedies

The U.S. Forest Service must complete a supplemental EIS that further evaluates the impact of stream flow reductions on fish passage and habitat, including impacts that could occur with a range of potential diversion rates for each stream reach. The ROD must include maximum diversion rates by location and set minimum stream flows to minimize potential fish impacts.

5.3.2.3. Prior Comments

The Tribe commented on stream flow reductions from surface and ground water diversions beginning on page 109 of its SDEIS comments.

5.4. Analytical Errors

5.4.1. Objection: The FEIS's fish resources and fish habitat evaluations were completed with limited empirical data specific to the Project area.

5.4.1.1. Issue

Despite the wealth of local fisheries data available for the Project area and existing local habitat models available, the FEIS reports fish impacts using a paltry amount of fish information specific to tributaries within the Project area.

The FEIS states that limited reach-specific fish data exists, or is not available, for all the streams potentially affected by the action alternatives. The FEIS also acknowledges incomplete information and cautions:[247]

> Some habitat conditions could not be quantitatively evaluated due to a lack of available data or a suitable site-specific model (e.g., impacts of stream flow reductions on overwintering fish, and a site-specific stream flow/productivity model). Other examples include lack of modeling of existing habitat for many fish at multiple life stages. There is a lack of a site-specific, two-dimensional hydraulic-based habitat suitability model. The nearest sites where data have been collected and modeling performed are on several streams in the Upper East Fork of the Salmon River (Sugar Creek, Tamarack Creek, Profile Creek, Quartz Creek, and the East Fork SFSR).

The FEIS does identify nearby, local, areas where the information does exist. However, the FEIS fails to use all this data. The FEIS only uses existing habitat models from two of the local streams (i.e., Sugar Creek and Summit Creek) and for only two of the fish species of concern (e.g., bull

[246] FEIS pg. 4-166
[247] FEIS at 4-357

trout, Westslope Cutthroat trout).[248] Similar habitat models exist for Chinook salmon and steelhead, but the results were not included in the FEIS.[249] As a result, the FEIS fails to provide a complete summary of Project impacts on fish resources and fish habitat using all the available information.

It is up to Perpetua Resources and the U.S. Forest Service to have collected the necessary fishery data needed to conduct a thorough and appropriate evaluation of this Project.

5.4.1.2. Suggested Remedies

The Forest Service should complete a supplemental EIS which reevaluates Project impacts to fish habitat for each of the four species of concern using *all* available data and tools from nearby, local streams and newly developed habitat suitability models specific to the Project area. The Forest Service should also use all the previously-developed habitat models from South Fork Salmon River tributaries.

5.4.1.3. Prior Comments

The Nez Perce Tribe discussed its multiple concerns with the SDEIS's fish effects analysis starting on pg. 89 of the Tribe's previously submitted comments on the Project's SDEIS.

5.4.2. Objection: The FEIS applies the intrinsic potential model incorrectly and fails to accurately capture future impacts to fish habitat.

5.4.2.1. Issue

The FEIS intrinsic potential (IP) evaluation of Project impacts on Chinook salmon and steelhead habitat impacts[250] is flawed for the following four reasons.

First, the IP model was originally developed for broad geographic areas like the Interior Columbia Basin[251] and was intended to describe historical habitat potential across a large spatial scale. The FEIS's use of the IP model to evaluate impacts to fish habitat at small, localized scales is inappropriate and overlooks fine-scale spatial variability critical for understanding site-specific impacts. Using a model designed for basin-wide analysis to predict habitat changes in small, impacted stream reaches will fail to detect changes and will underestimate project effects.

Second, the IP model was designed to represent habitat potential in pristine, undisturbed environments.[252] The streams in the EFSFSR headwaters have been heavily modified by over 100

[248] FEIS at 4-404 and 4-409

[249] USDA Forest Service Sugar Creek Instream Flow Evaluation - 7/26/1990 & 7/30/1990

[250] FEIS at 4-358, 4-391 to 4-393, 4-399 to 4-400.

[251] Cooney, T., & Holzer, D. (2006). *Appendix C: Interior Columbia Basin Stream Type Chinook Salmon and Steelhead Populations: Habitat Intrinsic Potential Analysis*.

[252] Sheer, M., Busch, D., Gilbert, E., Bayer, J., Lanigan, S., Schei, J., Kelly, B., & Miller, D. (2009). *Development and Management of Fish Intrinsic Potential Data and Methodologies: State of the IP 2008. Summary Report Pacific Northwest Aquatic Monitoring Partnership National Oceanic and Atmospheric Administration, National Marine Fisheries Service Pacific Northwest Aquatic Monitoring Partnership Series 2009-004*. https://doi.org/10.13140/RG.2.1.3548.2960

years of mining activities. Incorrectly, the FEIS applies the IP model to an environment where stream morphology and hydrology have been drastically altered by previous mining activities, making the model's predictions of potential habitat incongruent with existing habitat. This misapplication will lead to an overestimation of current habitat suitability and an underestimation of impacts from future habitat conditions.

Third, the IP model used in the FEIS relies on three input variables; stream width (i.e., wetted width or bank full width), gradient, and valley confinement. The model fails to incorporate critical ecological factors important for salmonids such as: stream temperature, habitat complexity, in-stream cover, species interactions, available food sources (i.e., drift quantity and quality),[253] water depth[254] and flow requirements,[255] and the addition of stream liners fully blocking groundwater inputs critical for salmonid survival.[256] These types of ecological factors are vital for assessing the existing condition of fish habitat and the likely impacts of proposed Project activities. By omitting these factors, the FEIS evaluation will underestimate the full scope of potential adverse effects on fish populations in the project area.

Fourth, the three IP model inputs depend heavily on low-resolution, remotely-sensed information and estimated conditions of the restored stream environment. Estimated model inputs had little validation from site-specific, empirical data. The lack of field validation raises questions about the accuracy of the model's predictions, especially given the absence of error analysis, uncertainty, or model sensitivity quantifications in the FEIS. The lack of model quality checks and validation with ground-truthing weakens the reliability and trustworthiness of the model in predicting habitat changes.[257]

In summary, the FEIS's reliance on the IP model to assess Chinook salmon and steelhead habitat impacts is inadequate due to its coarse-scale origin, failure to account for anthropogenic impacts, limited input variables, and overreliance on speculative data. The model's application in a heavily modified environment produces unreliable results, leading to flawed conclusions about the Project's environmental effects.

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[253] Bjornn, T. C., & Reiser, D. W. (1991). Habitat Requirements of Salmonids in Streams. In *Influences of Forest and Rangeland Management of Salmonid FIshes and Their Habitat* (Vol. 19, pp. 83–138). American Fisheries Society.

[254] Haas, D. (2017). *Standard Operating Procedure for Critical Riffle Analysis for Fish Passage in California* (No. CDFW-IFP-001). California Department of Fish and Wildlife.

[255] Thompson, K. (1972). *Determining Stream Flows for Fish Life* (Report to Pacific Northwest River Basins Commision, p. 20). Oregon State Game Commision, Environmental Management Section.

[256] Woody, C. A., & Higman, B. (2011, July 10). *Groundwater as Essential Salmon Habitat In Nushagak and Kvichak River Headwaters: Issues Relative to Mining*.

[257] Sheer, M., Busch, D., Gilbert, E., Bayer, J., Lanigan, S., Schei, J., Kelly, B., & Miller, D. (2009). *Development and Management of Fish Intrinsic Potential Data and Methodologies: State of the IP 2008. Summary Report Pacific Northwest Aquatic Monitoring Partnership National Oceanic and Atmospheric Administration, National Marine Fisheries Service Pacific Northwest Aquatic Monitoring Partnership Series 2009-004*. https://doi.org/10.13140/RG.2.1.3548.2960

5.4.2.2. Suggested Remedies

Complete a supplemental EIS that evaluates impacts to Chinook salmon and steelhead impacts using more localized and validated data from a broader range of ecological factors.

5.4.2.3. Prior Comments

The Nez Perce Tribe's previously submitted comments on the SDEIS identified flaws with the intrinsic potential model beginning on page 114.

5.4.3. Objection: The FEIS occupancy model is inappropriate to determine Project impacts and incorrectly claims positive benefits for bull trout and Westslope Cutthroat trout habitat.

5.4.3.1. Issue

The FEIS used an occupancy model to evaluate changes in the probability of bull trout and Westslope Cutthroat trout inhabiting stream reaches within the Project.[258] The FEIS found the Project would have minor, permanent, and localized benefits to both species. These results conflict with the results of the temperature[259] and weighted useable area (PHABSIM)[260] evaluations, which found major and long-term negative impacts. The conflicting results are caused by the inappropriate use of the occupancy model.

The occupancy model uses stream temperature, stream flow, and slope as model inputs to estimate a change in a fish's likelihood to inhabit a particular stream reach. The model was designed for conservation planning at landscape and regional spatial scales,[261] not as a precise tool to predict localized mining impacts. The original authors of the model intended to provide guidance for conserving species across large regions where stream habitats are threatened by climate change, and warned against fine-scale and site-specific assessments. In contrast, the FEIS used the occupancy model to estimate localized, small-scale impacts of the project on bull trout and Westslope Cutthroat trout in specific small stream reaches.

The use of the occupancy model in the FEIS is beyond the intended model application and the predictive performance of the model was not validated. Thus, the positive findings of the approach, which are conflicting with other FEIS evaluations, are not reasonable or trustworthy.

The Tribe requested that the USFS "construct new Occupancy Models that are built for the site and scale being analyzed, and fit it primarily with fish survey data from the SFSR or adjacent watersheds."[262] The Forest Service responded that "the modeling approach was developed through

[258] FEIS at 4-405 and 4-410.
[259] FEIS at 4-402 and 4-408.
[260] FEIS at 4-404 and 4-409.
[261] Isaak, D. J., Wenger, S. J., & Young, M. K. 2017. Big biology meets microclimatology: Defining thermal niches of ectotherms at landscape scales for conservation planning. Ecological Applications, 27(3), 977-990. https://doi.org/10.1002/eap.1501
[262] NPT SDEIS Comments at 115.

consultation with the Forest Service, USFWS, NMFS, and IDFG as a way to use the best available information for effects analysis.[263] This response from the Forest Service simply ignores our warnings and those from the original authors of the model.

5.4.3.2. Suggested Remedies

The Forest Service should prepare a supplemental EIS that includes an updated evaluation of bull trout and Westslope Cutthroat trout habitat loss using an occupancy model designed for the site and populated with existing data from the Project area.

5.4.3.3. Prior Comments

The Nez Perce Tribe has previously commented on occupancy model flaws beginning on page 114 of the comments it submitted on the SDEIS for the Project.

5.5. Scope of Analyses

5.5.1. Objection: Failure to include Sugar Creek in the environmental consequence analysis of the FEIS.

5.5.1.1. Issue

NEPA requires that federal agencies take a "hard look" at the environmental consequences of proposed actions. The FEIS fails to take the requisite hard look at the effects of the Project on fish and fish habitat in Sugar Creek.

Sugar Creek is hydrologically connected to the Project through its tributary West End Creek. Within the East Fork of the SFSR watershed, Sugar Creek supports the highest densities of spring/summer Chinook salmon and represents the only documented bull trout spawning habitat utilized by both fluvial and resident forms. It also supports ESA-listed steelhead.

Sugar Creek is currently 303(d) listed as impaired by the state of Idaho because of arsenic exceedance for Idaho's human health criterion and mercury exceedance for aquatic life and Salmonid Spawning Criteria.[264] A study conducted by USGS in Sugar Creek found that methylmercury concentrations in bull trout and riparian spiders were sufficiently high to, when consumed, affect humans, birds, and piscivorous fish.[265] The FEIS predicts an increase over baseline conditions for mercury, arsenic, and antimony concentrations in West End Creek, which flows into Sugar Creek, and an increase in mercury in Sugar Creek.[266]

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[263] FEIS App. B at B-415.
[264] Idaho Department of Environmental Quality 2018/2020 Integrated Report, Appendix A: Clean Water Act Section 305(b) List and Section 303(d) List at 332.
[265] Kraus, J.M., Holloway, J.M., Pribil, M.J., McGee, B.N., Stricker, C.A., Rutherford, D.L.,& Todd, A.S.(2022). Increased Mercury and reduced insect diversity in linked stream-riparian food webs downstream of a historical mercury mine. *Environmental Toxicology*. Volume 00, pp.1-15.
[266] FEIS at 4-380.

The Project will have environmental consequences for Sugar Creek's water quality and for its fish and fish habitat. However, the FEIS excludes Sugar Creek from its environmental effects analysis, including from numerous tables showing impacts to fish in the Environmental Consequences section.

According to the FEIS, West End Creek is not fish bearing and contributes relatively minor flow volumes to Sugar Creek.[267] But the Tribe shared with the Forest Service and Perpetua Resources environmental Deoxyribonucleic Acid ("eDNA") samples collected in 2014 and 2019 confirming bull trout presence in West End Creek. Moreover, the relatively minor flow volumes from West End Creek into Sugar Creek will not necessarily correlate with minor pollution effects given the current water quality issues in Sugar Creek.

5.5.1.2. Suggested Remedies

The Forest Service must conduct a supplemental NEPA analysis of the effects the Project will have on Sugar Creek water quality and on the fish and fish habitat it supports and provides.

5.5.1.3. Prior Comments

The Tribe commented on the importance of analyzing the environmental consequences of the Stibnite mine on Sugar Creek, and the absence of such analysis, in its comments on the Forest Service's SDEIS for the Project, starting on page 89.

5.5.2. Objection: Failure to analyze effects to Pacific lamprey and Western pearlshell mussels.

5.5.2.1. Issue

The Tribe considers it an oversight that robust field surveys/analysis was not performed on non-listed, but critically important, aquatic species. Examples of this are the lack of rigorous surveys and analysis for Pacific lamprey (*Entosphenus tridentatus*). The Tribe has worked to restore this important cultural and treaty-reserved resource since 2012, through releases of adult lamprey in the SFSR and EFSFSR watersheds downstream of the Project area.[268]

The FEIS recognizes that Pacific lamprey are one of the native fish species within the analysis area but states that none were detected in eDNA samples at the SGP and downstream.[269] It is unclear from the Fisheries and Aquatic Habitat Specialist Report the location and number of surveys of Pacific Lamprey conducted. It is highly likely that the lamprey released by the Tribe in the EFSFSR, downstream from the Project area, could move upstream and be detected with robust surveys and eDNA analysis.

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[267] *Id*. at 4-358.

[268] Brostrom et al., *Pacific Lamprey Regional Implementation Plan for the Snake River Region: Lower Snake, Clearwater and Salmon Regional Management Units*, 2018, https://www.pacificlamprey.org/wp-content/uploads/2022/02/2018.08.13-SnakeRIP.pdf.

[269] FEIS at 3-541.

The FEIS similarly lacks a robust analysis on Western pearlshell mussels (*Margaritifera falcata*). These native freshwater mussels were detected in the EFSFSR as recently as 2024 in mussel surveys conducted by the Tribe. Similarly, the Idaho Department of Fish and Game detected Western pearlshell mussels in 2008 in the EFSFSR, upstream of the Johnson Creek confluence.[270] The onus for conducting robust surveys for these mussels is on the U.S. Forest Service as the lead federal agency and the Tribe's trustee. These mussels are particularly susceptible to degraded water quality from mining, as their life span may extend as long as 100 years.

The FEIS also omitted any analysis of freshwater mussel populations that may be affected through impaired water quality. The Tribe expected the FEIS to include effects analysis for freshwater mussels in and downstream of the project.

5.5.2.2. Suggested Remedies

The current impacts documented in the FEIS to aquatic organisms and the Tribe's Treaty-reserved resources from the SGP are unacceptable. The Forest Service needs to prepare a supplemental EIS to document and analyze better baseline surveys for all aquatic organisms, including Pacific lamprey and Western pearlshell mussels, and to provide greater protections for aquatic organisms.

5.5.2.3. Prior Comments

The Tribe commented on impacts to Chinook salmon, Steelhead, bull trout, Westslope Cutthroat trout and other aquatic species in comments on the Forest Service's SDEIS for the Project, starting on page 92.

5.6. Mine Design and Operation

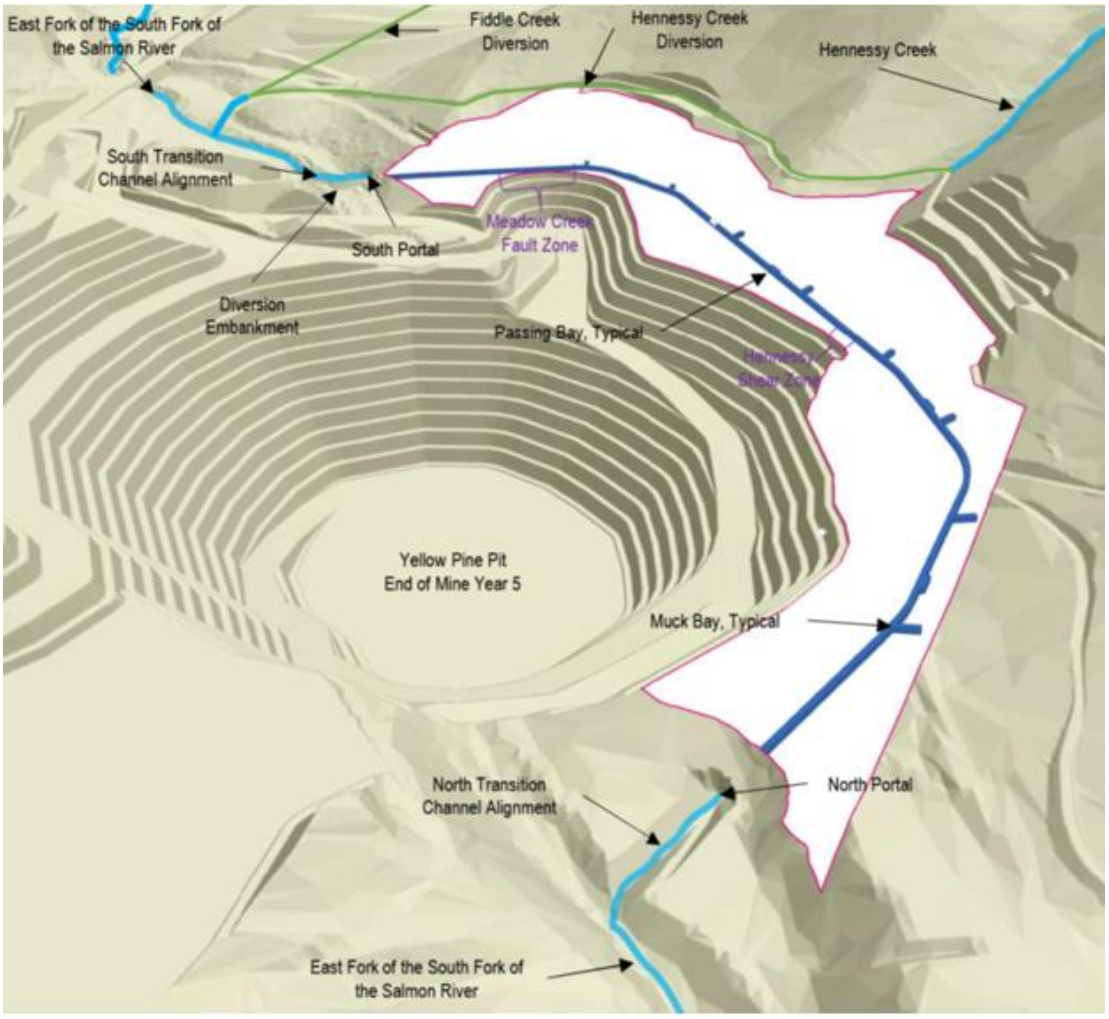
5.6.1. Objection: Failure to evaluate or analyze the impact to fisheries from noise and vibrations on the EFSFSR fish tunnel.

5.6.1.1. Issue

As noted in the FEIS, explosives detonated near water can produce shock waves that may be lethal or damaging to fish, fish eggs, or other aquatic organisms. Outside of the zone of lethal or harmful shock waves, the vibrations caused by drilling and blasting have the potential to disturb fish causing stress and alter behavior.[271] The FEIS concludes that because all blasting will be conducted in compliance with applicable regulations and standards, there will be negligible impacts to fish from noise and vibrations. The FEIS further states that there could be areas, such as the Yellow Pine Pit lake near the EFSFSR tunnel and adjacent Hangar Flats pit where Meadow Creek is closest, where reducing setbacks may be required.[272] Looking at Figure 3.5-15 (attached

[270] Idaho Fish and Game. Idaho Official Government website species status, ttps://idfg.idaho.gov/species/taxa/18250.
[271] FEIS at 4-360.
[272] FEIS at 4-361.

image below) from the Project Biological Assessment of the proposed 0.9 mile EFSFSR fish tunnel found in the Stibnite Gold Project, it is apparent how close it is to the Hennesey Shear Zone and the Meadow Creek Fault Zone. There will be five years of heavy blasting and disturbance immediately adjacent to this fish tunnel. All the studies cited in the FEIS regarding impacts to fish from blasting examined surface streams and lakes and used 425-foot blasting setbacks; no analysis or cited Best Management Practices ("BMP") are noted where these setbacks are violated. What are the impacts from noise and vibrations to the fish passage tunnel given its subsurface location in such close proximity to the blasting zones? In Appendix B, "Response to Public Comments on the SDEIS and Response to Public Concerns on the 2020 DEIS," comment 290, states "[t]he concrete walls of the fishway would result in both the reflection of sound off the tunnel, diffraction around the tunnel, and transmission into the concrete. There would be no difference in impacts to fish in the tunnel resulting from basting than there would be for fish in the creek channels".[273] This conclusion is not based on analysis but rather professional judgment. Blasting near the fish tunnel occurs closer than the cited blasting standards. Understanding impacts of sound and vibration is especially important in the fish passage tunnel for adult fish migrating upstream and for juvenile fish outmigrating.



[273] FEIS App. B at B-407.

5.6.1.2. Suggested Remedies

The Forest Service must conduct supplemental NEPA analysis to adequately address/analyze where blasting setbacks are not met. A supplemental EIS should take a closer look at impacts to fish using the fish tunnel and calculate sound decibels, duration of blasting, and frequency of blasting in relation to the fish tunnel. Moratoriums on blasting should be implemented when adult and juvenile Chinook Salmon, Steelhead, bull trout, and Westslope Cutthroat trout are using the fish tunnel to in/out migrate.

5.6.1.3. Prior Comments

The Tribe raised concerns related to the effects of blasting on aquatic species, especially with reduced setbacks, starting on page 97 of its SDEIS comments on the Project.

5.6.2. Objection: Failure to analyze the impact to fisheries from artificial light pollution.

5.6.2.1. Issue

The FEIS fails to address the significant impacts artificial lighting can have on salmonid rearing, migration, and spawning, which are well-documented in scientific literature. Artificial light has been shown to negatively affect fish growth, which is critical for the survival of salmonids, particularly during their early life stages.[274] This omission in the FEIS is concerning, as growth rates directly influence the resilience of salmon populations in the face of environmental pressures.

In addition to growth impacts, artificial lighting disrupts the behavior, foraging patterns, and physiological conditions of numerous fish species, including salmonids.[275] This disruption can alter migration timing and routes and critical aspects of the salmon life cycle, which the FEIS fails to consider. Such changes also increase the vulnerability of species like Chinook salmon to predation, especially during nocturnal hours when they rely on low-light conditions for protection. Research has shown that artificial light increases predation risks on Chinook salmon,[276] yet this was not evaluated in the current Project assessment.

Moreover, artificial light can interfere with Chinook salmon and Steelhead smoltification. Continuous artificial lighting or unchanging short photoperiods are detrimental to this process in

[274] Boeuf, G., & Le Bail, P.-Y. (1999). Does light have an influence on fish growth? *Aquaculture*, *177*(1), 129–152. https://doi.org/10.1016/S0044-8486(99)00074-5

[275] Bassi, A., Love, O. P., Cooke, S. J., Warriner, T. R., Harris, C. M., & Madliger, C. L. (2022). Effects of artificial light at night on fishes: A synthesis with future research priorities. *Fish and Fisheries*, *23*(3), 631–647. https://doi.org/10.1111/faf.12638

[276] Nelson, T. R., Michel, C. J., Gary, M. P., Lehman, B. M., Demetras, N. J., Hammen, J. J., & Horn, M. J. (2021). Effects of Artificial Lighting at Night on Predator Density and Salmonid Predation. *Transactions of the American Fisheries Society*, *150*(2), 147–159. https://doi.org/10.1002/tafs.10286

Chinook salmon,[277] and the lack of consideration for this impact further undermines the FEIS's completeness.

Streetlights and other common lighting sources also negatively affect species like Atlantic salmon, with research recommending the avoidance of lit areas to mitigate harm.[278] Despite this evidence, the FEIS does not propose adequate lighting management strategies to minimize these risks in salmonid habitats.

5.6.2.2. Suggested Remedies

The Forest Service should complete a supplemental EIS to include a thorough evaluation of artificial lighting effects on impacted fish species within the Project area, including the specific impacts on salmonid rearing, migration, smoltification, and spawning.

5.6.2.3. Prior Comments

The Tribe expressed concerns with fish tunnel lighting on page 100 of its comments on the Project's SDEIS.

5.6.3. Objection: Failure to analyze and ensure fish passage through the EFSFSR fish passage tunnel.

5.6.3.1. Issue

Perpetua has frequently touted the Project benefits to fish, focusing on the fish tunnel providing upstream and downstream passage for migratory and anadromous salmonid fish. But the Tribe has reason to believe Perpetua will not make a good-faith effort to ensure passage through the tunnel. During the course of proceedings on the Tribe's protest of Perpetua's water rights applications before the Idaho Department of Water Resources ("IDWR"), Perpetua misrepresented its own modeling of flows through the tunnel as currently designed. Its modeling, conducted in McMillen Jacobs (2022), showed that a minimum flow of 7.25 cfs would be necessary to ensure that the tunnel meets applicable National Marine Fisheries Service ("NMFS") criteria for weir-type passageways.[279] But Perpetua imported a different passage criteria for natural riffles to argue for lower minimum flows during critical times of fish passage.[280]

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[277] Hoffnagle, T. L., & Fivizzani, A. J. (1998). Effect of Three Hatchery Lighting Schemes on Indices of Smoltification in Chinook Salmon. *The Progressive Fish-Culturist*, *60*(3), 179–191. https://doi.org/10.1577/1548-8640(1998)060<0179:EOTHLS>2.0.CO;2

[278] Nelson, T. R., Michel, C. J., Gary, M. P., Lehman, B. M., Demetras, N. J., Hammen, J. J., & Horn, M. J. (2021). Effects of Artificial Lighting at Night on Predator Density and Salmonid Predation. *Transactions of the American Fisheries Society*, *150*(2), 147–159. https://doi.org/10.1002/tafs.10286

[279] McMillen Jacobs, Technical Memorandum: Supplemental Tunnel Hydraulic Modeling (Dec. 9, 2022). *See* Protestants' Joint Response in Opposition to Perpetua Resources' Petition for Reconsideration at 13–18, In re: Application in the Matter of Application Permit 77-14378 and Applications for Transfer 85396, 85397, and 85398, and Application for Exchange 85538 in the Name of Perpetua Resources Idaho, Inc. (May 8, 2024).

[280] *See* IDWR, Preliminary Order Approving at 22, In re: Application in the Matter of Application Permit 77-14378 and Applications for Transfer 85396, 85397, and 85398, and Application for Exchange 85538 in the Name of Perpetua Resources Idaho, Inc. (April 10, 2024).

In his Preliminary Order, the IDWR hearing officer rejected Perpetua's attempt at misdirection and imposed a minimum 7.25 cfs flow in accordance with flow modeling.[281] Perpetua has contested this order.

The FEIS must take an independent hard look at the efficacy of Perpetua's tunnel design, including an evaluation of flow modeling and water availability. Additionally, the final ROD must contain necessary sideboards to ensure that volitional passage, not trap-and-haul, remains the primary means for fish to pass the Yellow Pine Pit.

5.6.3.2. Suggested Remedies

The Forest Service must conduct supplemental NEPA analysis to take a hard look at the design and efficacy of Perpetua's proposed fish tunnel, particularly in conjunction with water use and availability. The Forest Service must also include in the final ROD minimum streamflows to ensure that flows will meet all relevant fish passage criteria at all relevant times, as well as mandatory measures (e.g. streamflow adjustments and design modifications) Perpetua must undertake before it can resort to trap-and-haul measures.

5.6.3.3. Prior Comments

The Tribe raised concerns with the efficacy of the fish passage tunnel on pages 116 and 117 of its comments on the Project's SDEIS, and briefed the Forest Service through government-to-government discussions on Perpetua's misrepresentations with respect to flow modeling and fish passage criteria during the Tribe's protest of Perpetua's water rights applications in front of IDWR.

5.7. Sediment and Turbidity

5.7.1. Objection: Failure to analyze the impact to fisheries from Project-related sediment and turbidity.

5.7.1.1. Issue

The FEIS inadequately addressed the potential impacts of Project-related sediment and turbidity on fisheries. All stream segments analyzed for sediment and turbidity in the Project area are currently Functioning at Unacceptable Risk ("FUR") as defined by Watershed Condition Indicators ("WCI").[282] The unique geology of this area makes it particularly susceptible to Project-related erosion that will impact ESA-listed fish species. The FEIS inadequately analyzes impacts to aquatic ecosystems from sedimentation associated with the Project and relies too heavily on assumptions tied to BMPs and road standards.

A. The unique geology at the Project site needs to be considered in the sediment analysis:

The geologic formation of the Idaho Batholith is generally noted in the FEIS, however this extremely erodible geology is not included in the sediment and turbidity analysis for

[281] *Id.*
[282] FEIS at 4-385.

impacts to fish. There are numerous publications specific to the SFSR watershed that highlight effects from ground-disturbing activities on this unique geology in relation to impacts to fish species.[283] As noted in the FEIS, Table 4.12-6, all baseline stream segments analyzed for sediment and turbidity in the Project area are listed as FUR, and this is before mine-related activities such as road widening, new road construction, increased traffic counts, fugitive dust, transmission line road construction, pit construction, and removal of vegetation at the site. Given that sediment and turbidity are such a documented limiting factor to the recovery of Endangered Species Act fish in the SFSR watershed, it was surprising that the final conclusion for this section regarding impacts to Chinook Salmon, Steelhead, bull trout, and Westslope Cutthroat trout is that impacts will be moderate, permanent, and localized.[284]

B. GRAIP Lite analysis inaccuracies:

Perpetua Resources contracted Tetra Tech to run a Geomorphic Roads Analysis and Inventory Package (GRAIP) Lite sediment analysis. This analysis modeled different operational access scenarios such as graveling roads and treating roads with chemical dust suppressants. The analysis also examined individual road segments to estimate sediment delivery to streams. The study concluded that the Burnt Log Route, Meadow Creek Lookout Road, Thunder Mountain Road, and on-site haul and access roads all increased sediment delivery to streams in both the scenarios analyzed.[285] The duration for traffic-related dust and erosion/sedimentation would last throughout the entire period of use for the Burnt Log Route (approximately 25 years).[286] Despite this analysis showing an increase in sediment delivery to streams, the FEIS concludes that there will be a reduction in sediment—not based on a sediment modeling analysis but rather on professional judgment regarding the use of future restoration actions such as mitigation and BMPs.

The SGP GRAIP Lite Analysis emphasizes that "sediment delivery to drainage crossing includes relief culverts, which are road drainage features, but are not designed or located to discharge drainage from roads directly to waterways. Drainage crossings that include bridges or culverts are more applicable for quantifying sediment delivery that directly impacts perennial, intermittent or ephemeral streams."[287] If the GRAIP Lite model only considered sediment delivery at stream crossing locations, the analysis is highly inaccurate.

The Johnson Creek Route, for example, is located in close proximity (i.e., within 100 feet) of streams for 6.5 miles or 18 percent of its 36-mile length.[288] The GRAIP Lite model uses a fractional delivery model to predict whether each road drainage feature is delivering

[283] Platts, W. S., Torquemada, R. J., McHenry, M. L., & Graham, C. K. *Changes in Salmon Spawning and Rearing Habitat from Increased Delivery of Fine Sediment to the South Fork Salmon River, Idaho,* Transactions of the American Fisheries Society, 118:274-283, 1989.
Megahan, W. F., & Kidd, W. J., *Effects of logging and logging roads on erosion and sediment deposition from steep terrain. Journal of Forestry*, 70:136-141, 1972.
[284] FEIS at 4-370.
[285] Tetra Tech, Inc. 2024. Stibnite Gold Project GRAIP Lite Analysis (RFAI-146).
[286] FEIS at 4-281.
[287] Tetra Tech, Inc. 2024. Stibnite Gold Project GRAIP Lite Analysis (RFAI-146) at 32.
[288] FEIS 4-276.

sediment to nearby streams. Calibration data is used to define a set of curves describing the probability that drain points will be observed to be stream connected based on the modeled flow distance to the modeled stream network and the length of the road segment it drains.[289]

It is unclear if the FEIS used GRAIP Lite modeled results to simulate how increases in Project-related traffic will impact sediment delivery to streams. The FEIS notes that during the construction phase traffic would increase by 65 vehicle trips per day and during the mining and operation phase (approximately 15 years), traffic would increase a total of 50 trips per day.[290] It is not clear in the FEIS if Project-related road maintenance traffic is also included in these numbers. Increased vehicular traffic causes sediment detachment and can contribute substantially to stream sedimentation.[291] It is also unclear if the GRAIP Lite analyzes properly modeled changes in traffic for each modeling scenario. In the GRAIP Lite sediment delivery equation 'E= B x L x S x V x R', 'R' represents the road surfacing factor. According to the GRAIP Lite manual, this factor should include both surface type and traffic level.[292] However, according to the SPG GRAIP Lite Analysis Report that was completed by Tetra Tech, the 'R' variable was only related the surface type[293] and the FEIS does not state how traffic numbers were analyzed in relation to stream sediment delivery. The Tribe recommends that the Forest Service use the Watershed Erosion Prediction Project model to allow for several options of road configurations, including soil, climate, traffic use, gradient, length, and width as well as fill slope and buffer characteristics.[294]

C. Over reliance on the effectiveness of BMPs for reducing sediment delivery to streams:

The FEIS relies heavily on the assumption that BMPs and regular road maintenance will minimize sediment delivery to streams. BMPs will play a critical role in Project sediment reduction efforts, however, a reduction of sediment and turbidity needs to be based on actual analysis and not simply an overly confident projection. While the FEIS notes that the potential exists for increased runoff, erosion, and sedimentation, which could result in increased sediment load into streams during the building of Burntlog route, sedimentation would be minimized using BMPs and required maintenance.[295] As noted in the FEIS, Table 4.12-6, all stream segments currently analyzed for sediment and turbidity in the Project area are currently FUR, as defined by WCI. These streamside roads are currently

[289] Nelson, N., Luce, C. & Black, T., *GRAIP_Lite: A System for Road Impact Assessment*, page 9, 2019. Available at https://research.fs.usda.gov/sites/default/files/2023-02/rmrs-graip_lite-manual2019.pdf
[290] FEIS at 4-368.
[291] Ziegler, A.D., Sutherland, R.A., & Giambelluca, T.W., *Interstorm surface preparation and sediment detachment by vehicle traffic on unpaved mountain roads.Earth Surface Processes and Landforms*, 26, 235-250, 2001.
[292] Nelson, N., Luce, C., & Black, T., *GRAIP_Lite: A System for Road Impact Assessment*, Table 1, page 8, 2019. Available at https://research.fs.usda.gov/sites/default/files/2023-02/rmrs-graip_lite-manual2019.pdf.
[293] Tetra Tech, Inc. 2024. Stibnite Gold Project GRAIP Lite Analysis (RFAI-146) at 11.
[294] Dube, K., Black, T., & Luce, C., *Comparison of road surface erosion models with measured road surface erosion rates*, National Council for Air and Stream Improvement, Technical Bulletin, No. 988, 2011.
[295] FEIS at 4-369.

maintained by Perpetua using BMPs, however the streams adjacent to these roads continue to be categorized as FUR for sediment and turbidity.

D. Lack of sediment and turbidity analysis on new roads and road widening within the Project area.

The FEIS inadequately addresses the addition of new roads and their associated disturbance on aquatic ecosystems. Numerous roads would need to be constructed within the mine site to access and haul mineralized rock and development rock, however these do not appear to have been accounted for in the FEIS. Road density is positively correlated with subsurface fine sediment in adjacent streams.[296] As noted in the FEIS in Table 3.12-16, the streams within the Project site are currently listed as FUR for Road Density/Location. While the SDEIS quantifies Road Density/Location in the baseline section, it omits a critical WCI of Road Density/Location in its environmental consequence analysis section. The Burntlog Route will require approximately 20 miles of existing road to be widened and 15 miles of new access road construction for the Project.[297] The Project would also construct 9 miles of new roads for transmission lines, however, the FEIS fails to describe how the WCI for Road Density/Location will be altered by the Project and what it means for fish if subsurface sediment fines increase in adjacent streams. An analysis of changes to the WCI Road Density/Location is needed in the supplemental FEIS.

The FEIS does not include modeling to quantify sediment delivery to streams from permanent upgrades/widening of existing transmission line roads and the construction of a new 8.5-mile transmission line from the Johnson Creek substation to the new substation at the SPG. The FEIS also failed to model sediment delivery changes for the Johnson Creek Route alternative or the upgrades/widening of approximately 23 miles of existing roads, including the full length of the Burntlog Road and segments of the Meadow Creek Lookout Road and Thunder Mountain Road. The FEIS notes that the overall effects of the SGP construction of temporary roads and transmission lines on sedimentation on fish and aquatic habitat are expected to include localized behavioral and sub-lethal heal impacts, as well as alterations to Critical Habitat but assumes BMPs will substantially reduce the effects.[298] The FEIS notes that utilities associated with the Project (existing transmission line grades and structure work, right-of-way clearing, new transmission line, and transmission line access roads) would cross 37 different streams and upgrade 63 miles of road.[299]

[296] Carnefix, G. & Frissell, C. *Aquatic and Other Environmental Impacts of Roads: The case for road density as indicator of human disturbance and road density reductions restoration target.* Pacific Rivers Council Science Publication 09-001. 2009.
[297] FEIS at 4-518.
[298] FEIS at 4-284
[299] FEIS at 4-12.

The Johnson Creek route crosses 43 different streams including 27 miles of road that are within 0.5 miles of surface water resources.[300] During the first two years of the mine, the Johnson Creek Road will need to be widened to accommodate mining machinery and traffic. Widening roads and clearing roadside ditches of vegetation has been shown to exponentially increase sediment delivery to streams.[301] Once again the FEIS assumes that BMPs and federal regulations will minimize sediment delivery to streams based on professional judgment with no analysis.

E. Sediment and turbidity analysis was not conducted on disturbed, unvegetated ground.

Table ES-3 of the FEIS quantifies the total mine component acreage impacts on previously undisturbed land: 881 acres for the mine site, 341 acres for access roads, 422 acres for utilities, and 29 acres for off-site facilities, all of which totals 1,1673 acres of impacts on undisturbed land.[302] This impact of land surface area changing from vegetated to unvegetated as a result of mine development will increase sediment delivery to streams. As mentioned earlier, the Project is located in an area of highly erosive, decomposing granitic soils where revegetation takes time, and the erosive effects of steep unvegetated banks in a watershed with flashy hydraulic events cannot be underestimated. With these acres of Project impacts leaving unvegetated, disturbed ground it is hard to understand predictions in Table 4.12-6 moving sediment and turbidity from FUR to Functioning at Risk ("FR") during mine years 1-20.[303]

F. Lack of sediment and turbidity analysis from mass wasting events and other Project features.

The FEIS does not adequately analyze the risk to ESA-listed fish related to mass wasting events on roads associated with the Project. Figure 3.2-6 on the FEIS displays landslides and rockfalls along the Johnson Creek Route (45) and Burntlog Route (26), however it does not analyze impacts to aquatic ecosystems from sediment delivery from these mass wasting events. The FEIS also identifies multiple potential avalanche paths crossed by the Johnson Creek Route (94) and the Burntlog Route (38).[304] Avalanche paths have caused extensive damage to the McCall-Stibnite Road over the last decade. Similar events are likely to occur again, not only for the McCall-Stibnite Road, but also for sections of the proposed Burntlog Route and Johnson Creek Route where roads are adjacent to steep terrain. Wildfires, new road construction, pit highwalls, and devegetation of the Project site will cause additional mass wasting events that impact streams with ESA-listed fish species. Although the FEIS lists impacts of sediment and turbidity on fish populations, it needs to analyze the increased risk of landslides due to road widening and road

[300] FEIS at 4-37.
[301] Luce, C. H., & Black, T. A., *Sediment production from forest roads in western Oregon*, Water Resources Research, 2561-2570, 1999.
[302] FEIS at ES-24.
[303] FEIS at 4-384–4-385.
[304] FEIS at 4-21.

construction using more rigorous methods, such as landslide susceptibility or landslide hazard modeling.

The FEIS insufficiently analyzes sediment impacts to surface water from factors other than roads. The Yellow Pine pit lake has been acting as a sediment trap for the the East Fork of Meadow Creek, Meadow Creek, and the upper EFSFSR. Research conducted at the Stibnite site by the United States Geological Society found that the Yellow Pine Pit captures ~70 percent of incoming sediment load.[305] With the new fish passage tunnel during mine year 1-23, this will no longer be the case. When the fish passage tunnel is constructed and water is allowed to enter this tunnel, it can be expected that the river's sediment will be released downstream. With a large amount of disturbance proposed, the FEIS needs to include more robust quantification and analysis on sediment delivery to area streams.

5.7.1.2. Suggested Remedies

The Project will deliver sediment and turbidity to live water from proposed road construction, maintenance, increased traffic use, removal of vegetation, pit highwalls, mining activity, fugitive dust, and Project-related mass wasting events. The Forest Service must conduct a supplemental EIS to disclose and analyze all of these impacts on aquatic organisms.

A. The unique geology at the Project site needs to be considered in the sediment analysis.

The Forest Service needs to consider and incorporate the Project area's erosion propensity due to its Idaho Batholith geology into all sediment and turbidity analysis in the supplemental FEIS.

B. GRAIP Lite analysis inaccuracies.

The Tribe has conducted miles of GRAIP road surveys in the Project area that are based on ground-truthed data collection. As noted in the GRAIP Lite website, "if you need to model site specific road impacts on smaller project areas where field data can be applied, then the GRAIP tool set may be more appropriate."[306] Perpetua Resources decided not to run the GRAIP model due to a lack of comprehensive field data for the full analysis area.[307] The Forest Service should require the collection of the remaining field data necessary to run the GRAIP model instead of the GRAIP Lite analysis. The Forest Service should then consider and incorporate the inaccuracies in the GRAIP Lite analysis mentioned above into the new analysis. The findings of the GRAIP Lite Analysis shows an increase in sediment delivery to streams; despite this the FEIS concludes that there will be a reduction

[305] Baldwin, A.K., and Etheridge, A.B., 2019, Arsenic, antimony, mercury, and water temperature in streams near Stibnite mining area, central Idaho, 2011–17: U.S. Geological Survey Scientific Investigations Report 2019-5072, 20 p., plus appendix, https://doi.org/10.3133/sir20195072.
[306] Rocky Mountain Research Station, GRAIP_Lite. https://research.fs.usda.gov/rmrs/projects/graiplite.
[307] Tetra Tech, Inc. 2024. Stibnite Gold Project GRAIP Lite Analysis (RFAI-146) at 6.

in sediment over the life of the project. The Forest Service needs to give more weight to actual data and less weight to BMP assumptions.

C. Over reliance on the effectiveness of BMPs for reducing sediment delivery to streams.

As noted above, Perpetua Resources is currently maintaining all roads within the Project area using BMPs and yet all are currently FUR for sediment and turbidity—and that's without a mining project. BMPs will play a critical role in Project sediment reduction efforts, however, the Forest Service needs to base any conclusions regarding sediment and turbidity on actual analysis and not simply on overly confident projections.

D. Lack of sediment and turbidity analysis on new roads and road widening within the Project area.

The Forest Service needs to analyze all Project roads constructed and widened for sediment and turbidity impacts to aquatic organisms.

E. Sediment and turbidity analysis was not conducted on disturbed, unvegetated ground.

Sediment and turbidity will result from vegetated ground becoming disturbed and unvegetated. The Forest Service needs to analyze all disturbed and unvegetated acres for sediment and turbidity delivery to streams.

F. Lack of sediment and turbidity analysis from mass wasting events and other Project features.

The Forest Service needs to analyze mass wasting events and other Project features, such as the removal of the Yellow Pine Pit, for impacts of Project-related sediment and turbidity on aquatic organisms.

The sediment analysis for the FEIS is woefully inadequate and the U.S. Forest Service must conduct supplemental NEPA analysis to adequately address/analyze Project-related sediment and turbidity on aquatic ecosystems.

5.7.1.3. Prior Comments

The Tribe commented on concerns relating to the effect sediment and turbidity can have on aquatic ecosystems starting on page 106 of its comments on the Project's SDEIS.

5.8. Water Quality and Contaminants

5.8.1. Objection: Inadequate water quality and contaminant baseline and analysis in the FEIS.

5.8.1.1. Issue

The FEIS disregards the Tribe's concerns regarding projected increases in fish contaminants from the SGP. Current (baseline) levels of SGP area fish tissue contaminants associated with mining[308] (e.g. arsenic, cadmium, mercury, lead, copper) are inadequately assessed in the FEIS and Aquatic Resources 2016 Baseline Study, and do not provide a scientific baseline with which to compare future fish contaminant levels.

Of particular concern to the Tribe is methylmercury contamination. "Methylmercury is a potent toxin, bioaccumulated and concentrated through the aquatic food chain, placing at risk people, throughout the globe and across the socio- economic spectrum, who consume predatory fish or for whom fish is a dietary mainstay."[309] Dissolved mercury currently exceeds the 2.0 ng/L analysis criteria in most of the surveyed nodes.[310] Table 4.12-4 in the FEIS highlights that mercury concentrations will exceed baseline conditions for post project closure in numerous stream reaches. The EFSFSR is currently 303(d) listed under the Clean Water Act as Mercury Impaired by the state of Idaho.[311] Allowing Project-related mercury increases in a 303(d) Mercury Impaired stream should have prompted a change in the mine plan.

U.S. Geological Survey studies in the SGP area show current methylmercury levels in ESA-listed salmonids at levels harmful to humans (other bioaccumulative contaminants were not assessed).[312] Current methylmercury levels in fish at SGP pose health risks to humans if consumed.[313] The EPA (2024) indicates exposure to methylmercury primarily occurs when people eat fish and shellfish with high levels of methylmercury.[314] Methylmercury is a powerful neurotoxin, and people exposed to high levels can experience adverse health effects, including:

- Loss of peripheral vision;
- "Pins and needles" feelings, usually in the hands, feet, and around the mouth;
- Lack of coordination;
- Impairment of speech, hearing, walking; and/or
- Muscle weakness.

Infants can be exposed to methylmercury in utero when mothers consume fish and shellfish containing methylmercury. This exposure can adversely affect infants' brains and nervous systems. Children exposed to methylmercury in the womb can have impacts on cognitive thinking, memory, attention, language, fine motor skills, and visual spatial skills.

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[308] Earthworks. 2017. US Gold Mines: Spills and Failures Report. Available at: Earthworks, 1612 K St., NW, Suite 904, Washington D.C. 20006.
[309] Mergler et al. 2007. Methylmercury Exposure and Health Effects in Humans: A Worldwide Concern.Ambio Vol. 36, No. 1, February 2007.
[310] FEIS at 4-378.
[311] Idaho Department of Environmental Quality 2018/2020 Integrated Report, Appendix A: Clean Water Act Section 305 (b) List and Section 303(d) List.
[312] Kraus, J., J. M. Holloway, M. J. Pribil, B. N. McGee, C. A. Stricker, D. L. Rutherford, and A. S. Todd. 2022. Environmental Toxicology and Chemistry—Volume 00, Number 00—pp. 1–15, 2022.
[313] *Id*.
[314] EPA. 2024. Health Effects of Exposures to Mercury. *Available at* https://www.epa.gov/mercury/health-effects-exposures-mercury (last accessed Oct. 15, 2024).

Arsenic is highly toxic to aquatic organisms. Arsenic is a suspected carcinogen to fish and is associated with necrotic and fibrous tissues and cell damage, especially in the liver. [315]Arsenic concentrations currently exceed the analysis criteria in all assessment nodes except YP-T-11. Arsenic concentrations exceed baseline conditions in West End Creek and Sugar Creek post mine closure.[316] Both of these streams contain ESA-listed fish species.

A limited FEIS study[317] (see Table 5-15) did show **Westslope Cutthroat trout tissue contaminant exceedances for: aluminum, antimony, arsenic, cadmium, chromium, copper, iron, magnesium, manganese, nickel, selenium, titanium and zinc.** These common heavy metal mine pollutants can cause severe toxicity in fishes and can also harm humans that consume them.[318]

Mining for gold at SGP will introduce additional contaminants into aquatic systems that can continue to impact water quality long after the SGP closes.[319] This, combined with the fact that EIS predictions of water quality at mines are more often inaccurate than accurate,[320] makes it imperative that data on fish contaminants be accurately and scientifically assessed prior to mining.

Further, history shows that legacy impacts of mining are significantly more persistent and expensive than those observed during active mining.[321] Because Nez Perce Tribal members harvest and consume fish from the area, scientifically defensible fish contaminant baseline is needed in the FEIS to ascertain current contaminant levels and human health risks, and to assess the potential for future exacerbation of contamination risks from SGP development. The SGP development plan presents significant future additive contamination risks[322] to area waters, ESA-listed fish species, non-listed fishes, and human consumers.

Despite these risks, no scientifically defensible SGP fish contaminant baseline was collected for the FEIS. A very limited study[323] of sampled tissue from 28 Westslope Cutthroat trout at five sites was conducted, but fish lengths and weights were not documented. This is despite the fact that fish

[315] Garai P., Priyajit Banerjee, Pradip Mondal, Nimai Chandra Saha. 2021. Effect of Heavy Metals on Fishes: Toxicity and Bioaccumulation. J Clin Toxicol, Vol. 11 Iss. S18 No: 001.
[316] FEIS at 4-380.
[317] MWH. 2017. Aquatic Resources 2016 Baseline Study. Stibnite Gold Project. Midas Gold Idaho, Inc.
[318] Garai P., Priyajit Banerjee, Pradip Mondal, Nimai Chandra Saha. 2021. Effect of Heavy Metals on Fishes: Toxicity and Bioaccumulation. J Clin Toxicol, Vol. 11 Iss. S18 No: 001.
[319] EPA. 1994. Acid mine drainage prediction. EPA530-R-94-036. USEPA, Washington, DC. Available at: www.epa.gov/osw/ nonhaz/industrial/special/mining/techdocs/amd.pdf. Kuipers, J. R., A. S. Maest, K. A. MacHardy, and G. Lawson. 2006. Comparison of predicted and actual water quality at hardrock mines: the reliability of predictions in environmental impact statements. Kuipers and Associates, Butte, Montana. Woody et al. 2010. Mining Law of 1872: Change is Overdue. Fisheries: vol 35 No. 7 pgs. 321-331. Earthworks 2017. US Gold Mines: Spills and Failures Report. GAO, 2023.From gold rush to rot-the lasting environmental cost and financial liabilities of hardrock mining. US General Accountability Office. Watchblog: following the federal dollar. Posted 22 Feb. 2023. Dovic et al. 2016. Bioaccumulation trends of arsenic and antimony in a freshwater ecosystem affected by mine drainage. Environ. Chem. 2016, 13, 149–159. http://dx.doi.org/10.1071/EN15046.
[320] EPA 1994; Kuipers et al. 2006.
[321] EPA 1994; Kuipers et al. 2006,Woody et al. 2010, Earthworks 2017, GAO 2023
[322] Fashola, M. , V. Ngole-Jeme, and O. Babalola. 2016. Heavy Metal Pollution from Gold Mines: Environmental Effects and Bacterial Strategies for Resistance. Int. J. Environ. Res. Public Health 2016, 13, 1047; doi:10.3390/ijerph13111047.
[323] MHC, 2017. Aquatic Resources Baseline Study.Prepared for Midas Gold Idaho, Inc. Valley County, Idaho, April 2017 .

length and weight are key in contaminant sampling because they often correlate with fish contaminant levels, allowing a better understanding of how contaminant levels vary depending on fish size.[324] Because salmonids can bioaccumulate contaminants, larger, older fish can bioaccumulate higher contaminant loads than smaller, younger fish. In the limited FEIS Westslope Cutthroat trout study, five sites were sampled for 28 Westslope Cutthroat; at two sites, 3 cutthroat were sampled and at one site just one Cutthroat was sampled.[325] A sample size of one or three is neither representative of a population nor scientifically defensible, particularly relative to bioaccumulation and potential human consumption concerns.

5.8.1.2. Suggested Remedies

The American Fisheries Society recommends that: "baseline ecological and environmental research and monitoring should be conducted in areas slated for mining before, during, and after development so that the effects of those industries can be assessed in an ecologically and statistically rigorous manner and the resulting data should be made publicly available."[326]

The Forest Service must complete a supplemental EIS to include a scientifically-defensible baseline of current fish tissue contamination levels in the SGP area (e.g. larger sample sizes, inclusion of fish length and weight, and applying standard scientific protocols) for salmonids harvested by Tribal members for subsistence. The Forest Service must require that fish tissue contaminant levels be monitored both during and after the SGP ceases, since impacts can continue into perpetuity. The current study does not provide any scientific inference on current contaminant loads nor support assessment of potential risks to fish and humans.

5.8.1.3. Prior Comments

The Tribe raised concerns with water quality and contaminants on aquatic resources starting on page 103 its SDEIS comments.

5.9. Climate Change

The Tribe has raised the need for accurate and thorough analyses of climate change impacts throughout the NEPA process for the Project. Climate change is a scientifically verified reality; the fact that available climate modeling technology was not used to evaluate impacts to aquatic resources is a shortfall of this FEIS.

Current climate change models, available to the public, provide estimates for future conditions based on a range of emission scenarios (e.g. Low, High). These models are based on well-

[324] Sackett D.K., Cope W.G., Rice J.A., Aday D.D. 2013. The influence of fish length on tissue mercury dynamics: implications for natural resource management and human health risk. Int J Environ Res Public Health. 2013 Feb 6;10(2):638-59. doi: 10.3390/ijerph10020638.

[325] MHC, 2017. Aquatic Resources Baseline Study.Prepared for Midas Gold Idaho, Inc. Valley County, Idaho, April 2017.

[326] International Security Advisory Board ("ISAB"). 2007. *Climate Change Impacts on Columbia River Basin FIsh and Wildlife*, ISAB Climate Change Report 2007-2. Portland, OR: Independent Scientific Advisory Board for the Northwest Power and Conservation Council.

established physical science.[327] Average daily temperature projections for the Nez Perce Tribe's Indian Claims Commission Territory were accessed from ClimateToolbox.org for this Objection.[328] They indicate that through 2069, under a Low Emission scenario, average daily temperatures are projected to increase relative to historical values by +2.5^{o} C during potential mine operation and closure (2010-2069) and to +3.1^{o}C (2070-2099) when water treatment and site rehabilitation will likely be ongoing. The High Emission scenario, which is plausible if CO2 emissions are not substantially curbed, projects a +3.4^{o} C increase through 2069 and a +5.4^{o} C increase through 2099.

Climate change will affect fish habitat through changes in precipitation, temperature, and soil moisture. The Idaho Batholith region will shift from being strongly snow-dominated to a mix of rain and snow.[329] This increased winter rain will create flashier hydrologic peaks.[330] Increased average winter temperatures will lead to reduced snowpack and decreased soil moisture in the Northern Rockies.[331] Climate change will also increase stream temperatures, which will reduce the number of tributaries providing cold-water refuge for resident salmonids like bull and cutthroat trout.[332] These changes will worsen and complicate the already-significant effects from the SGP, and must be accounted for in NEPA analysis.

Indeed, the effects of climate change are evident in the immediate vicinity of the SGP. A recent six-year USGS water quality study (2011-2017) showed that current SGP area water temperatures regularly exceeded salmonid spawning and bull trout criteria.[333] Climate change will exacerbate already-high water temperatures.

5.9.1. Objection: failure to include climate change in stream temperature models.

5.9.1.1. Issue

As discussed in detail in the Tribe's SDEIS comments and Water Quality objections below, the FEIS relies on modeling to understand the effects of the SGP to water temperature. Yet those

[327] Arias P.A. *et al*. 2021. Technical summary. In *Climate Change 2021: The physical science basis. Contribution of working group 1 to the 6th Assessment Report to the Intergovernmental Panel on Climate Change*. (Masson-Delmotte, V., et al. (eds.) Cambridge Univ. Press, Cambridge U.K., pp.33-144. Doi:10.1017/9781009157896.002.
[328] Climate Impacts Group, University of Washington. Climate Summary Report, Nez Perce Tribe Indian Claims Commission Territory (downloaded from the Tribal Climate Tool on Oct. 18, 2024).
[329] Klos, P. Z., Link, T. E., & Abatzoglou, J. T., *Extent of the rain-snow transition zone in the western U.S. under historic and projected climate*, Geophysical Research Letters, 41, 4560-4568, 2014.
[330] ISAB (2007).
[331] Gergel, D. R., Nijssen, B., Abatzoglou, J. T., Lettenmaier, D. P., & Stumbaugh, M. R., E*ffects of climate change on snowpack and fire potential in the Western USA*, Climatic Change, 141, 287-299, 2017.
[332] Isaak, D. J., Peterson, E. E., Ver Hoef, J. M., Nagel, D., Wollrab, S., Chandler, G., . . . Parkes-Payne, S. A*nalysis of Spatial Stream Networks for Salmonids Fish Data Analysis Tool, Phase 2 Report*, BPA Project 2017-002-00, 2020.
[333] Baldwin, A.K., and Etheridge, A.B., 2019, Arsenic, antimony, mercury, and water temperature in streams near Stibnite mining area, central Idaho, 2011–17: U.S. Geological Survey Scientific Investigations Report 2019-5072, 20 p., plus appendix, https://doi.org/10.3133/sir20195072.

models do not incorporate climate change. The FEIS water temperature model assumes future stream temperatures will be similar to historic water temperature data without the SGP.[334]

In response to the Tribe's SDEIS comments highlighting the flaw, the Forest Service only responds that "[i]ncorporation of climate change effects into quantitative stream temperature models is outside the scope of this EIS."[335]

The Forest Service's response is confounding. Climate change will have real, foreseeable, and quantifiable effects which must be accounted for in the temperature models and resulting analyses in the FEIS.

As noted in the FEIS on Table 4.12-2, stream temperatures will increase over baseline conditions during the first 27 years of the Project with some stream reaches increasing an additional 6.8°C—and this is without considering climate change in the model. Is there any analysis to show that listed fish species will be able to persist until Mine Year 112 when the reductions in stream temperatures are expected to be realized? The FEIS must incorporate climate change into stream temperature models and evaluate if fish can persist in stream reaches with elevated temperatures until Project-related shading effects are realized.

5.9.1.2. Suggested Remedies

The Forest Service must complete a supplemental EIS to incorporate climate change into stream temperature models, and disclose the resulting effects to shading assumptions, fish habitat and habitat criteria, water quality, and other relevant factors.

5.9.1.3. Prior Comments

The Tribe raised the failure to incorporate climate change into water temperature modeling starting on page 101 of its SDEIS comments on the Project.

5.9.2. Objection: failure to consider, analyze, and mitigate the effects of stochastic events.

5.9.2.1. Issue

Reasonably foreseeable stochastic events due to regional climate change scenarios (extreme heat, drought, floods, fire, etc.[336]) are not analyzed or integrated into any aspect of the FEIS, including

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[334] Brown and Caldwell. 2018. Final Stibnite Gold Project Stream and Pit Lake Network Temperature Model Existing Conditions Report. Prepared for Midas Gold Idaho, Inc. Valley County, Idaho, March 6th, 2018.

[335] FEIS App. B at B-407.

[336] *See, e.g.*, Abatzoglou, J. T., Marshall, A. M., Harley, G. L. 2021. Observed and Projected Changes in Idaho's Climate. *Idaho Climate-Economy Impacts Assessment*. James A. & Louise McClure Center for Public Policy Research, University of Idaho. Boise, ID. Arias et al. (2021). U.S. Global Change Research Program. 2024. Our Changing Planet: The U.S. Global Change Research Program for Fiscal Year 2024. Washington, DC, USA. https://doi.org/10.7930/ocpfy2024. U.S. Global Change Research Program. 2024. Our Changing Planet: The U.S. Global Change Research Program for Fiscal Year 2024. Washington, DC, USA. https://doi.org/10.7930/ocpfy2024. Senande-Rivera, M., Insua-Costa, D. & Miguez-Macho, G. 2022. Spatial and temporal expansion of global wildland fire activity in response to climate change. *Nat Commun* 13, 1208.

ESA-listed fish habitat conditions or infrastructure planning. In response to the Tribe's calls for fulsome analysis to assess effects and inform risk analyses and mitigation measures, the Forest Service points to "[b]aseline erosion and and sediment transport conditions" as well as business-as-usual sediment reduction measures that amount to a non-response to the Tribe's concerns.[337] The FEIS does not factor climate change into the efficacy of mitigation measures meant to protect fish and water quality, which include the fish passage tunnel, culverts, tree planting, and water treatment (which will potentially extend into perpetuity). The Forest even waved off recommendations by the Tribe to reduce the Project's CO2 footprint.

It is now an inescapable fact that climate change is driving more and more severe stochastic events such as floods, drought, and wildfires. These events must be fully considered as they affect aspects of the Project and Project area, ranging from drainage measures, fish passage and habitat conditions, revegetation, contamination risk, and human health and safety.

5.9.2.2. Suggested Remedies

The Forest Service must conduct a supplemental EIS to analyze the cumulative effects of reasonably foreseeable climate-related stochastic events, develop mitigation measures to address those effects, and modify the Project if necessary.

5.9.2.3. Prior Comments

The Tribe commented on climate-related stochastic events on page 109 of its comments on the SDEIS for the Prokect.

6. Air Quality

6.1. Ambient Air Quality

6.1.1. Objection: The Forest Service failed to comply with the Clean Air Act when it declined to include Project area road segments that will remain accessible by the public throughout the life of the Project within its environmental analysis of the Project site's "ambient air,"[338] as defined by the Clean Air Act, and, as a result, also failed to take a hard look at Project-related environmental impacts to air quality within the Project site, as required by NEPA.

6.1.1.1. Issue

The Clean Air Act's implementing regulations define "ambient air" as "that portion of the atmosphere, external to buildings, to which the general public has access."[339] The Forest Service, chose to adopt Perpetua Resource's proposed ambient air boundary, which excludes the air above the public access road within the Project site (from Stibnite Road (FR50412) to Thunder Mountain

https://doi-org.offcampus.lib.washington.edu/10.1038/s41467-022-28835-2

[337] FEIS App. B at B-137.

[338] 40 C.F.R. § 50.1(e).

[339] *Id.*

Road (FR 50375))[340] from "ambient air."[341] This decision is not in compliance with the definition of "ambient air" under the Clean Air Act and has led to an inadequate environmental analysis of air quality environmental impacts in the FEIS.

The Forest Service intends to enable the public continued access through the Project site during the life of the Project so that the public can continue to access Thunder Mountain and other areas beyond the Project site. The Forest Service states in the ROD:

> A new 12-foot-wide gravel road will be constructed to provide public access from Stibnite Road (FR 50412) to Thunder Mountain Road (FR 50375) through the Stibnite Gold Project. During operations, the public access road will be used to travel through the Stibnite Gold Project and will provide seasonal use, open to all vehicles. Vehicles passing through the Stibnite Gold Project will be required to check-in with mine personnel at the North or South Stibnite Gold Project entry points.[342]

Despite the Forest Service's representation that the Stibnite Road through the mine site will continue to allow seasonal use "to all vehicles," the Forest Service relies on the Idaho Department of Environmental Quality's ("IDEQ") analysis in its SGP Air Quality Permit to Construct ("PTC") to conclude that the air above the public access road within the Project site should be excluded from "ambient air." The Forest Service states, "IDEQ has accessed [sic] the access road restriction and stated that only registered guests would have access to or through the mine as stated in the final PTC issued on June 17, 2022. IDEQ is confident of its interpretation of ambient air and asserts that methods applied to exclude areas is appropriate."[343]

Calling members of the public who happen to be driving through the Project site "registered guests" does nothing to change the fact that the public will continue to have basically unfettered, seasonal access to the Stibnite Road through the Project site. As the Forest Service itself says in the DROD, "all" public vehicles wishing to pass through the site will be allowed to do so.[344]

The U.S. EPA's revised Ambient Air Policy for implementing the Clean Air Act states that only when the public is "precluded" from access to areas owned or controlled by a source, can the area be exempted from "ambient air" and, by extension, exempted from compliance with the National Ambient Air Quality Standards ("NAAQS").[345] The fact is that asking the public to stop and register as they traverse a Project site on what has been, and what will functionally remain, a public road is simply not the same as precluding the public. If the public is allowed to essentially freely traverse the site, registration or no registration, the public will be exposed to the air quality within

[340] *See* description in FEIS at 3-33 and DROD at 72, 101.
[341] FEIS at 2-2.
[342] DROD at 72, 101.
[343] FEIS at 3-33.
[344] DROD at 72, 101. A vehicle passing through a project site is not a guest of the site or a business invitee; it has no business at the site. It is simply using an available route to get to the other side of the site.
[345] EPA 2019. U.S. Environmental Policy Act, Revised Policy on Exclusions from "Ambient Air," December 2, 2019.

the Project site. Thus, the public road from Stibnite Road (FR50412) to Thunder Mountain Road (FR 50375) should be considered "ambient air" subject to the NAAQS.

U.S. EPA flagged the issue of excluding the public access road from "ambient air" on page 5 of its January 10, 2023, comment letter on the Forest Service's SDEIS for the Project. In its comment letter, EPA requested that the Forest Service add the following clarifying language to the EIS:

> Exclusion of the public access road from ambient air protections is a unique case that relies on measures assumed to meet the standards inferred in the 2019 revised ambient air policy. However, a formal EPA policy review of the ambient air boundary for the project has not been conducted nor requested. A formal review is not necessarily required. The EPA did provide formal comment on IDEQ's air quality PTC recommending a review be requested by the state and that initial measures in the PTC were too ambiguous to determine compliance with the revised ambient air policy.[346]

The Forest Service added this language to the FEIS on page 3-33.

6.1.1.2. Suggested Remedies

The Forest Service cannot rely on IDEQ's or Perpetua Resources' representations regarding the public nature of the public access road through the Site. The Forest Service must conduct its own analysis and reach its own conclusions regarding whether the air above the public access road within the Project site (from Stibnite Road (FR50412) to Thunder Mountain Road (FR 50375))[347] constitutes "ambient air."[348]

The Forest Service should reach the common sense conclusion that the air above the public access road running through the Project site is "ambient air" subject to the NAAQS. Based on this conclusion, the Forest Service should reassess Project-related environmental impacts to air quality within the Project Site.

6.1.1.3. Connection to Prior Comments

This issue was raised by the Tribe on pages 34 and 69 of its comment letter submitted to the Forest Service on the Project's SDEIS, dated January 5, 2023.

6.2. Missing Information

6.2.1. Objection: The Forest has failed to include missing air quality management plans, which are NEPA public disclosure and Forest Service hard look analysis issues. The Forest cannot understand and analyze full environmental effects if it hasn't written plans that will

[346] EPA 2023. EPA SDEIS Comment Letter dated January 10, 2023.
[347] See description in FEIS at 3-33 and DROD at 72, 101.
[348] FEIS at 2-2.

dictate the scope of those environmental impacts and the mitigations necessary to minimize them.

6.2.1.1. Issue

The Forest relies on the IDEQ PTC for mitigating impacts to the air resource and meeting requirements under the Clean Air Act.[349] The PTC includes four management plans to control air emissions: the Fugitive Dust Control Plan ("FDCP"), the Operations and Maintenance Manual, the Access Management Plan, and the Haul Road Capping Plan.[350] The Tribe previously commented to the Forest on the fact that none of these PTC plans had been written. In response the Forest stated:

> All the various management plans outlined in the PTC will be completed prior to completion of the Final EIS and included or will be required to get USFS approval prior to the commencement of construction.[351]

Although the Forest states these plans will be required to get USFS approval prior to commencement of construction, none of these still unwritten plans will be available for Tribal and public review and comment.

Only the FDCP is referenced in both the FEIS (at 4-37 and 4-61) and DROD (at pp. 15 and 50). The Access Management Plan is only referenced in the FEIS (at 3-33). The PTC's Operations and Maintenance Manual and Haul Road Capping Plan are not referenced at all in the DROD or FEIS.

The Forest does list five mitigation measures in the FEIS and DROD for the as-yet unwritten FDCP, however, the mitigation measures are non-specific, non-measurable "procedures," "triggers," "actions," and "steps." The Forest Service states:

> Perpetua would develop a fugitive dust control plan (FDCP) that would address the following at a minimum:
>
> - Procedures followed by Perpetua employees to control and minimize fugitive dust emissions.
> - Trigger levels to be set that require corrective action.
> - Actions to bring fugitive dust emissions within acceptable ranges.
> - Steps to demonstrate that appropriate corrective procedures are followed.
> - Procedures to verify that Perpetua is controlling avoidable fugitive dust emissions.[352]

[349] FEIS at 4-37, 4-38, 4-61.
[350] IDEQ. 2022. Air Quality Permit to Construct, Perpetua Resources Idaho, Inc., P-2019.0047, Issued June 17, 2022.
[351] FEIS App. B at B-163.
[352] FEIS at 4-61 to 4-62; DROD at 15-16.

The Forest cannot claim as mitigation measures referenced state of Idaho PTC plans that have not yet been written. And, the few, vague, non-measurable mitigation measures listed in the FEIS and ROD are wholly inadequate to disclose and minimize impacts to air quality.

Complete versions of these plans are necessary for the Forest Service to fully evaluate environmental impacts to air quality and develop efficacious mitigation measures to minimize impacts. Complete versions of these plans are also necessary for the public to fully understand environmental impacts to air quality and evaluate the efficacy of any mitigation measures proposed by the Forest.

6.2.1.2. Suggested Remedies

To comply with federal law, the Forest Service must conduct a thorough review of this issue and develop sufficient plans and mitigation measures to protect the air resource, with specific goals and standards that are quantifiable and measurable. The Forest Service should complete a supplemental EIS that includes and analyzes the IDEQ Operations and Maintenance Plan, Access Management Plan, and Haul Road Capping Plan, so that the Tribe and public can comment on anticipated environmental and human effects.

6.2.1.3. Connection to Prior Comments

This issue was raised by the Tribe on pages 68-69 of its comment letter submitted to the Forest Service on the SGP SDEIS dated January 5, 2023.

6.2.2. Objection: The Forest's fugitive dust monitoring plan is not rigorous enough to be meaningful under EPA standards. Elements listed in the ROD are incomplete and, therefore, the plan is meaningless.

6.2.2.1. Issue

The Forest states "The Stibnite Gold Project may result in unanticipated levels of dust emissions and associated air quality impacts."[353] The Tribe commented on the insufficiency of plans to minimize impacts to air resources in its January 5, 2023, comment letter on the SDEIS. The Forest responded that, "The Final EIS includes numerous mitigation measures not previously outlined in the SDEIS, one of which includes a dust monitoring program."[354] The Forest calls this new plan a "Fence-Line Dust Control Monitoring Plan" and states that, "[b]ecause dust emissions from the Stibnite Gold Project may impact air quality, a dust monitoring plan was developed by Perpetua."[355]

The Forest proceeds to describe the plan:

[353] FEIS at 4-63; DROD at 16.
[354] FEIS App. B at B-163.
[355] FEIS at 4-63;. DROD at 16.

> As the Project Operator will be responsible for the implementation of the dust monitoring plan, including installation of dust monitors at two locations near the mine operations boundary. One location will be south of the mine boundary close to the Burntlog Route. The other location will be between the eastern mine boundary and wilderness areas. The plan will include dust and meteorological monitoring during operations and quarterly reports to the U.S. Forest Service; monitoring and reporting will occur during non-winter periods and be implemented prior to commencement of mining. The plan will be reviewed and approved by the Forest Service and implemented prior to the commencement of mining. Forest Service personnel will review monitoring data for conformance with analyzed effects of dust emissions on Forest Service resources. This data will be used in conjunction with field observations for adherence to the objectives of the Stibnite Gold Project's dust control measures.
>
> After five (5) years of monitoring and every three (3) years thereafter, the Forest Service and the Project Operator will review this plan to determine if sufficient information was acquired and the monitoring may be discontinued.[356]

The FEIS further describes:

> Effectiveness: This monitoring measure collects information on dust emissions from the Project during operations that may be used to evaluate unanticipated dust impacts to air quality and other resources.[357]

Additionally, the DROD in Table 5, Prominent Regulatory and Land and Resource Management Plan Requirements, states that,

> The proponent will prepare a dust mitigation plan with appropriate schedule or triggers for control deemed adequate by Idaho Department of Environmental Quality to achieve the level of control of 93.3 percent of dust (as required in conditions 2.1-2.8 of the Permit to Construct from Idaho Department of Environmental Quality).
>
> Additionally, the proponent will employ particulate matter or opacity monitors deemed adequate by the Forest Service and immediately apply water or chemical dust control when PM or

[356] FEIS at 4-63; DROD at 16.
[357] FEIS at 4-63.

> opacity monitors reach levels within 10 percent of the threshold determined by Idaho Department of Environmental Quality.[358]

The Forest's new Fence-Line Dust Control Monitoring Plan, although appearing to contain some specific measurable mitigation measures, in reality lacks the clear and specific mitigation requirements in the FEIS and DROD necessary to minimize the Project's adverse impacts to the air resource. It contains:

- No analysis supporting the adequacy of the two dust control monitoring locations to accurately represent dust emissions from the mine;
- No analysis or description of the type of dust monitors, or how often they sample, or whether data would be real-time or averaged;
- No standard for data quality; and
- No analysis supporting the limits of sampling only during non-winter and operational periods only.

The Forest's new Fence-Line Dust Control Monitoring Plan, therefore, lacks specific goals and standards that are quantifiable and measurable. As EPA states in outlining its Air Quality Management Process, Managing Air Quality - Setting Air Quality Goals,

> Effective air quality management systems also include specific goals or standards that are quantified, measurable and have associated timelines for achievement. A transparent process facilitates understanding, acceptance and implementation of goals and standards. Such a process includes consultation with and review by the public and the regulated community.[359]

The Forest's new Fence-Line Dust Control Monitoring Plan has not yet been written and will not be available for public review and comment. The Forest cannot claim as mitigation measures plans that have not yet been written. The few vague, non-measurable mitigation measures listed in the FEIS and DROD for the Fence-Line Dust Control Monitoring Plan are also inadequate to ensure impacts to air quality are minimized because there are no metrics included to evaluate whether or not NAAQS standards are met.

The new Fence-Line Dust Control Monitoring Plan only requires monitoring for particulate matter (PM).[360] Measuring PM is a meaningless metric for evaluating compliance-related impacts to human health and welfare under the Clean Air Act. The insufficiency of mitigation measures was also raised by EPA on page 5 of its January 10, 2023, comment letter to the Forest Service on the SDEIS. EPA states:

> For the FEIS, EPA continues to recommend continuous PM10 monitoring at the facility fenceline, as a mitigation measure and

[358] DROD at 53.

[359] EPA 2024. U.S. Environmental Protection Agency, Air Quality Management Process, Managing Air Quality – Setting Air Quality Goals https://www.epa.gov/air-quality-management-process/managing-air-quality-setting-air-quality-goals (last updated on July 10, 2024).

[360] FEIS at 4-63; DROD at 16, 53.

> integral part of the FDCP, to ensure the project will not cause a violation of the primary and secondary National Ambient Air Quality Standards. Monitoring is justified based on the high range of uncertainty in the estimates of fugitive dust emissions and high potential of potential impacts to resources in the project area.
>
> Though the DSEIS modeling indicates that PM10 impacts will be below the NAAQS, the modeling was based on numerous assumptions, including achieving a 93% control efficiency on fugitive dust emitted from haul roads. Small errors and uncertainties in the emission inventory assumptions could lead to significantly more fugitive dust emissions than estimated. In its prior comments to IDEQ, EPA raised concerns about the feasibility and enforceability of achieving the 93% control efficiency. PM10 monitoring would help to verify the estimated emissions in the assessments were correct or provide a measurement tool to gauge the effectiveness of post-project mitigation to address excessive emissions.[361]

6.2.2.2. Suggested Remedies

To comply with federal law, the Forest Service must issue a supplemental EIS that develops sufficient mitigation measures to protect the air resource, with specific goals and standards that are quantifiable and measurable in accordance with the Clean Air Act. The Forest Service should clearly and adequately identify mitigation measures in the FEIS and ROD necessary to minimize the Project's adverse impacts to the environment, require monitoring for PM10 as well as meteorological monitoring, and include mitigation measures that ensure sufficient and appropriate representativeness monitoring data. The Forest Service should make the Fence-Line Dust Control Monitoring Plan available to the public for public review and comment.

6.2.2.3. Connection to Prior Comments

This issue was raised by the Tribe on pages 68-69 of its comment letter submitted to the Forest Service on the SGP SDEIS, dated January 5, 2023.

7. Water Resources

7.1. Hazardous Materials

7.1.1. Objection: Failure to analyze spill risk and the impact to fisheries from a chemical spill.

7.1.1.1. Issue

[361] EPA (2023).

NEPA requires that federal agencies take a "hard look" at the environmental consequences of proposed actions. Hardrock mines use and generate large volumes of hazardous and toxic materials that have substantial environmental and public health risk when spilled.[362] The FEIS consistently downplays the potential risk of contaminants spilling into aquatic ecosystems saying the likelihood is negligible to moderate based not on any kind of quantitative analysis but rather relying on state standards, hazardous material BMPs and rapid spill response.[363] A study looking at Alaskan hardrock mine spill risk analysis concluded that transportation spill models vastly underpredicted the actual number of spills that occurred at the five mine study sites. The article also stressed that most spill risk analysis examines the risk during transportation of materials to and from the mine and does not consider spills that happen at the mine site during operations.[364] In Perpetua Resource's recent past, there has been a fuel spill from an airplane crash carrying fuel, staff vehicles that have gone off the road, and contractor vehicle rollovers. This all took place during the work occurring under the Golden Meadows Exploration Project and Administrative Settlement Agreement and Order on Consent, when there were relatively low numbers of personnel traveling compared to this mine proposal. The Tribe, in their SDEIS comments, asked that the FEIS document Perpetua's current record with fuel spills and Project-related vehicles going off the road during trips to the Stibnite site. This information was not included in the FEIS.

The FEIS notes that of all the substances to be transported, fuel poses the highest risk to fish and fish habitat.[365] A large diesel spill could kill 100 percent of the Chinook salmon juveniles, alevins, and eggs for a considerable distance (several miles) downstream of the accident.[366] The FEIS does not sufficiently analyze the impacts from potential contaminants spilling into aquatic ecosystems. Considering the massive quantities of toxic materials that would be used **annually** at the site (e.g., 5,800,000 gallons of diesel fuel and 0.5 million gallons of gasoline),[367] the Project poses an implicit risk for spilled contaminants to affect aquatic organisms and persist outside the project area and downstream (> 0.5 mile) from spill locations. In contrast, the FEIS states that the EFSFSR and associated tributaries, including streams within 0.5 mile of access routes, are the major surface water bodies that could be impacted by potential spills.[368] This assertion falsely suggests that impacts of a contaminant spill (e.g., large diesel spill) would only impact streams within 0.5 mile of the spill location. On the contrary, an example from the Kalamazoo River proves that spilled diesel oil can travel over 30 miles downstream from the spill location.[369] Documentation of previous diesel spills on aquatic ecosystems illustrate how detrimental and long lasting the effects are to aquatic life. A 2,000 gallon diesel spill in California's Hayfork Creek impacted the food web from macroinvertebrates to fish to avian species feeding on the fish. A study concluded that impacts from the diesel fuel would be long-lasting in the aquatic

[362] Hughes, R. M., Chambers, D. M., DellaSala, D.A.., Karr, J.R.,Lubetkin, S. C., O'Neal. S., Vadas. R.L., & Woody, C.A. (2024). Environmental impact assessments should include rigorous scientific peer review. *Water Biology and Security (3)*.
[363] FEIS at 4-376.
[364] Hughes et al. (2024).
[365] FEIS at 4-375.
[366] FEIS at 4-376.
[367] FEIS at 4-375.
[368] FEIS at 4-152.
[369] NPR, *Firm Blamed in the Costliest Onshore Oil Spill Ever*, 2012, https://www.npr.org/2012/07/10/156561319/oil-company-knew-michigan-pipeline-was-cracked.

ecosystem.[370] Analysis of all risks of contaminant spills is necessary, including the full distance downstream that all contaminants could persist from spill locations and how those concentrations would impact aquatic organisms.

The FEIS fails to analyze the spill risk for the Middle Fork Salmon River watershed. The proposed Burntlog Route crosses over a ridge that separates the SFSR watershed, where the Project is located, from the upper Middle Fork Salmon River watershed. In fact, the Burntlog Route reaches within 0.25 miles from an unnamed tributary of Big Chief Creek, which leads into Indian Creek and eventually the Middle Fork Salmon River. Spill risk to the Middle Fork Salmon River watershed needs to be analyzed. The FEIS shows that Upper Indian Creek was added to the potentially impacted HUC 6th field subwatersheds to address the Tribe's previous comments, however, there is no data available for Upper Indian Creek rendering Table 3.12-16 analysis of this subwatershed meaningless. Baseline data for Upper Indian Creek subwatershed needs to be collected and analyzed for impacts to fisheries and other aquatic organisms.

The percent of access routes that are located in riparian conservation areas is insufficiently quantified. The SDEIS notes that 6.5 miles or 18% of the 36-mile Yellow Pine Route is located within 100 feet of streams.[371] It is unclear how the Yellow Pine Route was calculated as a 36-mile distance or why the riparian area is only considered within 100 feet of a stream channel. The Boise National Forest Land and Resource Management Plan[372] is useful in calculating the percentage of routes in close proximity to streams. Using guidance from this document, 61% of Johnson Creek Road is located within the riparian conservation areas buffer. Considering the high proportion of roads in riparian conservation areas, the risk of a spill reaching surface water needs to be properly analyzed. The measures included in the Spill Prevention, Control and Countermeasure Plan would reduce the potential for a spill to reach downstream waters, yet there is no guarantee of no effects to aquatic life.

The FEIS falsely claims to qualitatively assess risk of vehicular accidents. The FEIS cites data with very low rates of large truck accidents resulting in spills of hazardous material.[373] However, these data are assumed to be from mostly straight, multi- lane, paved highways, in stark contrast to the steep, sinuous, narrow dirt roads associated with the Project. The FEIS acknowledges that statistics for haul truck road accidents on county roads and/or in mountainous terrain are very limited, but that does not make it appropriate to use data comparatively from paved roads to suggest that the risk of spills in the SFSR watershed is negligible. Equally unacceptable is the FEIS making the assumption that transportation on these roads would be safer than highway roads because there is less traffic and lower speeds.

The FEIS lacks any analysis on the risk of fuel spills from airborne traffic. Indeed, an airplane crashed and spilled fuel at the site in February 2012, releasing 100 gallons of diesel fuel. And yet, the FEIS does not describe how air traffic will arrive at the site during the life of the mine. Analysis of the risk of fuel spills from airborne traffic is imperative, and an air route that avoids flying over critical habitat for Endangered Species Act-listed fish species should be detailed.

[370] Bury, R. Bruce, *The Effects of Diesel Fuel on a Stream Fauna*, California Fish and Game, 1972.
[371] FEIS at 4-276.
[372] Boise National Forest Land and Resource Management Plan at 41.
[373] FEIS at 4-148.

The FEIS concludes that design features and permit stipulations and regulatory requirements from state and federal agencies would reduce the risk of spills and ensure that effective response is provided should a spill occur.[374] In the event of a major spill, a timely response would take an estimated 45 minutes to arrive at the spill site.[375] Anyone who has traveled along the EFSFSR or Johnson Creek during spring stream flows understands that it would be nearly impossible to contain a spill during high flows. The FEIS relies heavily on professional judgment regarding the use of BMPs with little to no analysis of spill risks. The Tribe recommends quantifying all hazardous materials being taken to the site, total number of trips in riparian buffers and running different spill risk scenarios.

7.1.1.2. Suggested Remedies

The Forest Service must conduct supplemental NEPA analysis to adequately address/analyze the risk of spills on aquatic ecosystems. The supplemental analysis should also include baseline data collection for Upper Indian Creek subwatershed to adequately analyze for impacts to fisheries and other aquatic organisms. The supplemental analysis should also accurately quantify the percent of access routes that are located in riparian conservation areas and formulate all prevention and cleanup plans, including the Sill Prevention, Control and Countermeasure plan, before approving the Project. And, finally the supplemental analysis should analyze the effects of hazardous waste spills during transportation using current appropriate data and calculations and quantify all hazardous materials being taken to the site, the total number of haul trips in riparian buffers, and run accurate and appropriate spill risk scenarios.

7.1.1.3. Prior Comments

The Tribe raised concerns relating to spill risks to aquatic ecosystems starting on page 98 of its SDEIS comments.

7.2. Water Temperature

The FEIS relies on the Stream Pit Lake Network Temperature ("SPLNT") model, which is flawed and inaccurate due to a limited and potentially biased baseline, calibration, and validation datasets, incorrect modeling assumptions, and an incomplete model sensitivity analysis. These flaws undermine the reliability of the FEIS water temperature effects analysis and all subsequent analyses (i.e., water quality and fisheries resource impacts) that depend on water temperature impacts. Inaccurate or biased temperature predictions make it impossible to assess the risk of water temperatures falling below water quality standards, or to gain an understanding of potential fish habitat loss due to temperatures being outside the range of optimum conditions.

7.2.1. Objection: Use of flawed baseline temperature data to evaluate Project impacts to water quality.

7.2.1.1. Issue

[374] FEIS at 4-148.
[375] FEIS at 4-152.

The SPLNT model relies on baseline temperature data from a limited number of monitoring sites, including USGS stations and project site-specific data collected by Midas Gold (now Perpetua Resources) (Tables 3-1 and 3-2).[376] The baseline data used was collected from six water years, 2011 to 2017. This relatively short time frame may capture seasonal variability, but lacks sufficient information to accurately reflect the true range of water temperatures for the Project's evaluation period (>112 years). Notably, the SPLNT model assumes that the baseline data provides a comprehensive representation of current conditions, which may lead to incorrect predictions when scaling for future project impacts.

7.2.1.2. Suggested Remedies

The Forest Service can resolve this objection by completing a supplemental EIS that analyzes an expanded set of baseline temperature data collection to evaluate the SGP's impacts to water quality.

7.2.1.3. Prior Comments

Stream temperature concerns and issues are mentioned in the Tribe's previous comments to the SDEIS starting on page 81 and were discussed in multiple staff-to-staff meetings.

7.2.2. Objection: the FEIS fails to take a hard look at impacts to water temperatures because of insufficient data validation and calibration.

7.2.2.1. Issue

The SPLNT model was calibrated with a single day of observations, July 29, 2016, and validated with a single day of observations, September 24, 2014.[377] Calibrating and validating with a single point in time does not capture the full domain of the model, nor does it provide adequate proof of the model's reliability to predict water temperature impacts across seasonal water patterns. Failing to include multiple temporal calibration points in streams with variable seasonal and diurnal shifts may result in quality temperature simulations for the single day at the expense of unrealistic overall temperature balances in model outputs.[378]

Also problematic, data collection and model development comes predominantly from Perpetua Resources. Brown and Caldwell, a contractor for Perpetua Resources, developed the model, performed data summaries, and selected calibration and validation datasets. Additionally, a large number of data collection activities were sponsored by Perpetua Resources. All of these factors introduce potential bias in favor of more optimistic temperature outcomes. Independent validation by the USFS or from a third-party source is necessary for robust model calibration and accuracy.

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[376] Brown and Caldwell 2018. Final Stibnite Gold Project Stream and Pit Lake Network Temperature Model Existing Conditions Report. Prepared for Midas Gold Idaho, Inc. Valley County, Idaho, March 6th, 2018.
[377] Brown and Caldwell 2018 at 5-1.
[378] Dugdale, S. J., Hannah, D. M., & Malcolm, I. A. (2017). River temperature modeling: A review of process-based approaches and future directions. *Earth-Science Reviews*, *175*, 97–113. https://doi.org/10.1016/j.earscirev.2017.10.009.

7.2.2.2. Suggested Remedies

The Forest Service can resolve this objection by issuing a supplemental EIS that analyzes the SGP's impacts to water quality using sufficient calibration and validation points to ensure model reliability, and include an independent third-party validation of the modeling approach and assumptions.

7.2.2.3. Prior Comments

Stream temperature concerns and issues are mentioned in the Tribe's previous comments to the SDEIS starting on page 81 and were discussed in multiple staff-to-staff meetings.

7.2.3. Objection: The FEIS fails to take a hard look at impacts to water temperatures because models do not account for environmental interactions.

7.2.3.1. Issue

The assumptions used in the SPLNT model are overly simplistic and do not account for complex environmental interactions. For example, the QUAL2K model, a portion of SPLNT, assumes one dimensional steady-state conditions,[379] which neglect the dynamic nature of stream flows and temperature fluctuations over short and long-term periods;[380] the QUAL2K model is largely limited in accounting for groundwater and hyporheic inflows.[381] This makes an accurate evaluation of stream temperatures through the lined stream reaches of Meadow Creek impossible.

More specifically, it is unclear how the QUAL2K model includes spatial and temporal temperature variability due to groundwater interactions, hyporheic inflows, and stream morphology. Groundwater plays a critical role in moderating temperatures, especially during low-flow and winter periods[382] and is critical to salmonid egg survival.[383] As stream morphology shifts through natural forces or proposed restoration actions, it's reasonable to believe steam flow velocity and widths may change. Decreased stream velocities and increased width is known to impact

[379] Pelletier, G. J., Chapra, S. C., & Tao, H. (2006). QUAL2Kw – A framework for modeling water quality in streams and rivers using a genetic algorithm for calibration. *Environmental Modelling & Software*, *21*(3), 419–425. https://doi.org/10.1016/j.envsoft.2005.07.002

[380] *QUAL2K: A Modeling Framework for Simulating River and Stream Water Quality* (Chapra et al., 2008). In this manual, it is recommended to use multiple calibration points, particularly in systems with significant variations along the length of the water body. Calibration points can be based on observed water quality data, such as temperature, dissolved oxygen, and nutrient concentrations at multiple locations along the stream. These points help refine the model parameters for different reaches.

[381] Dugdale, S. J., Hannah, D. M., & Malcolm, I. A. (2017). River temperature modelling: A review of process-based approaches and future directions. *Earth-Science Reviews*, *175*, 97–113. https://doi.org/10.1016/j.earscirev.2017.10.009

[382] Kaandorp, V. P., Doornenbal, P. J., Kooi, H., Peter Broers, H., & de Louw, P. G. B. (2019). Temperature buffering by groundwater in ecologically valuable lowland streams under current and future climate conditions. *Journal of Hydrology X*, *3*, 100031. https://doi.org/10.1016/j.hydroa.2019.100031

[383] Woody, C. A., & Higman, B. (2011, July 10). *Groundwater as Essential Salmon Habitat In Nushagak and Kvichak River Headwaters: Issues Relative to Mining*.

temperatures through increased solar radiation.[384] Incorrect model assumptions could lead to large underestimates of stream temperatures during summer and fall low-flow conditions.

The sensitivity analysis conducted for the SPLNT model focuses primarily on specific variables, such as air temperatures, cloud cover, stream flows, upstream input temperatures, and riparian shading, but it does not sufficiently explore the effects of other critical parameters like groundwater inflows and climate change scenarios, or a combination of inputs changing.[385] In addition, the sensitivity analysis does not account for the interrelatedness and dependent nature of the variables. As a result, the model's predictions for future temperature conditions will likely not fully capture the variability of the system.

Moreover, while the results of the SPLNT model discusses improving water temperatures via restoration measures, the sensitivity analysis does not incorporate long-term climate projections, which will increase stream temperatures in the future. This omission could lead to over-optimistic predictions regarding the project's effectiveness in managing future temperature conditions.

7.2.3.2. Suggested Remedies

The Forest Service can resolve this objection by promulgating a supplemental EIS that revises model assumptions to reflect more complex environmental interactions, and broadens the sensitivity analysis to include a wider range of factors, especially those inputs that are interrelated and associated with climate change.

7.2.3.3. Prior Comments

Stream temperature concerns and issues are mentioned in the Tribe's previous comments to the SDEIS starting on page 81 and were discussed in multiple staff-to-staff meetings.

7.2.4. Objection: The FEIS fails to take a hard look at impacts to water temperatures because of unreasonable shading assumptions.

7.2.4.1. Issue

The FEIS includes unreasonable stream shading assumptions for QUAL2K model inputs and the model fails to account for heat fluxes outside the riparian buffer. The MODPro2 alternative incorporates wider riparian zones and taller species as key strategies for cooling temperatures[386]. However, it assumes restoration actions will perform as planned, that riparian plantings will uniformly mature and provide adequate shade within the predicted time frame, and that areas outside the riparian buffer will have no impact on stream temperatures. It's unlikely the riparian plantings will have complete success or optimum growing conditions in a highly altered site with

[384] Leach, J. A., Kelleher, C., Kurylyk, B. L., Moore, R. D., & Neilson, B. T. (2023). A primer on stream temperature processes. *WIREs Water*, *10*(4), e1643. https://doi.org/10.1002/wat2.1643

[385] Brown and Caldwell 2018. Section 5.3 at 5-4.

[386] Brown and Caldwell 2021. Final Stream and Pit Lake Network Temperature Model, Refined Proposed Action (ModPRO2) Report. Prepared for Midas Gold Idaho, Inc. Valley County, Idaho, July 2021; Section 2.2.3 page 2-8 - 2-10.

degraded soil.[387] Without accounting for potential delays in growth due to degraded growing conditions, climate stress, or human error in planting, model predictions are inaccurate. Additionally, the QUAL2K model assumes vegetation cover reduces solar radiation and warming, but underestimates stream temperatures due to the model's inability to capture heat fluxes within the riparian area that is influenced from the disturbed project area.[388]

Shade assumption errors are also made in reaches with low-flow piping. The QUAL2K model requires shading inputs to calculate the warming effect of solar radiation on open water surfaces. Assuming 100% shading for all the piped stream reaches indirectly assumes no warming within the reach. This assumption is incorrect. Water in pipes will warm through frictional forces and through solar radiation on the pipe surface if exposed or from subsurface temperature increases.[389]

7.2.4.2. Suggested Remedies

The Forest Service can resolve this objection by promulgating a supplemental EIS that uses realistic QUAL2K model input for shading.

7.2.4.3. Prior Comments

Stream temperature concerns and issues are mentioned in the Tribe's previous comments to the SDEIS starting on page 81 and were discussed in multiple staff-to-staff meetings.

7.3. Stream and Wetland Compensatory Mitigation

7.3.1. Objection: Inappropriate use of a Functional Assessment method from Montana for mitigation requirements

7.3.1.1. Issue

Perpetua employs a functional assessment method to calculate mitigation requirements based on "functional units" rather than straightforward quantities. This method, which is borrowed from Montana, is not currently utilized in Idaho. Assessments evaluated the current conditions of streams and wetlands instead of their pre-impacted states, leading to lower scores. Consequently, using the functional assessment method results in reduced stream and wetland mitigation requirements. Furthermore, Perpetua's functional assessment tool does not adequately reflect the Tribal significance, which would yield higher scores had cultural values been considered. Incorporating these values could result in the need for additional mitigation measures.

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[387] Justice, C., White, S. M., McCullough, D. A., Graves, D. S., & Blanchard, M. R. (2017). Can stream and riparian restoration offset climate change impacts to salmon populations? *Journal of Environmental Management*, *188*, 212–227. https://doi.org/10.1016/j.jenvman.2016.12.005

[388] Dugdale, S. J., Hannah, D. M., & Malcolm, I. A. (2017). River temperature modelling: A review of process-based approaches and future directions. *Earth-Science Reviews*, *175*, 97–113. https://doi.org/10.1016/j.earscirev.2017.10.009

[389] Nissler, E., Scherrer, S., Class, H., Müller, T., Hermannspan, M., Osmancevic, E., & Haslauer, C. (2023). Heat transport from atmosphere through the subsurface to drinking-water supply pipes. *Vadose Zone Journal*, *22*(6), 270–286. https://doi.org/10.1002/vzj2.20286

7.3.1.2. Suggested Remedies

Perpetua's functional assessment findings should be validated using the Idaho Wetland Ecosystem Services Protocol, which incorporates the Tribal needs and values associated with culturally significant wetlands and plants.

7.3.1.3. Prior Comments

The Tribe commented on Wetland Functional Assessment scores on pages 87-88 of its comments on the Project's SDEIS.

7.3.2. Objection: Failure to analyze overlap of proposed mitigation efforts with existing required legacy cleanup.

7.3.2.1. Issue

Stream and wetland restoration and/or mitigation appear to be required as part of the ASAOC. The location of these efforts is not specified in the FEIS and could overlap with proposed mitigation for the current proposed mine project.

7.3.2.2. Suggested Remedies

Provide, in supplemental NEPA analysis, exhibits and analysis showing locations for both required restoration actions and proposed mitigation.

7.3.2.3. Prior Comments

The Tribe commented on wetland and stream mitigation in the SDEIS on page 88 on its SDEIS comments.

7.3.3. Objection: Inappropriate stream and wetland mitigation credits calculation methods and extreme delay (20+ years) between impacts and mitigation.

7.3.3.1. Issue

Perpetua's complicated function-based accounting method does not recognize legacy mining impacts or the excessive time lag between impact and mitigation, and, therefore, does not include those factors in the accounting. It also makes assumptions about the success and quality of proposed future mitigation measures. Proposed mitigation is presented as a complete restoration of the Stibnite site after mining is finished, plus an excessive amount of offsite mitigation to make up for the time lag. In fact, use of this functional units calculation method results in a dramatic shortfall in mitigation compared to calculations using traditional ratio methods, and no additional mitigation or increased ratios to make up for the 20+ year time lag.

Per USACE's Regulatory Guidance Letter ("RGL") 02-02, compensatory mitigation is to be initiated no later than the first full growing season following the impact. The RGL also states

functional assessments may not be applicable to after-the-fact mitigation, which is a similar situation to legacy impacts present at this site. The reasoning for this is simple—functional assessments of streams and wetlands that have already been impacted by mining will score lower than they would have prior to impacts. So, an assessment of the current condition will return lower scores and will reduce mitigation requirements.

Mitigation Ratio Calculations versus Proposed Mitigation

Resource Type	Impact	Ratio[390]	Mitigation Required	Mitigation Plan Offering
Stream (ln ft)	111,869	1	111,869	133,964[391]
PEM (ac)	29.44	2	58.88	70.66
PSS (ac)	61.18	3	183.54	33.67
PFO (ac)	54.77	4	219.08	123.33

7.3.3.2. Suggested Remedies

In the absence of established functional assessment methods, mitigation requirements are typically calculated using mitigation ratios. Mitigation ratios are meant to account for uncertainty of success and quality, delays between impacts and mitigation, and time for site maturity. Based on Perpetua's use of an untested functional assessment method, the presence of legacy impacts, and an extreme lag between impacts and mitigation, compensatory mitigation should be recalculated based on acreage and linear-feet and an appropriate ratio.

7.3.3.3. Prior Comments

The Tribe commented on wetland and stream mitigation on pages 87-88 of its comments on the Project's SDEIS.

7.3.4. Objection: Proposed off-site mitigation is flawed.

[390] Standard ratios used when impacts and mitigation are essentially concurrent. Based on the severity of the impacts and the extreme delay in initiating mitigation, those ratios should be drastically increased.
[391] This value includes unsubstantiated offsite and out of basin credit generation calculations.

7.3.4.1. Issue

Three offsite mitigation projects are proposed to supplement onsite mitigation, each with its own issues.

For wetland impacts in the North Fork Payette River Subbasin, the applicant proposes to purchase credits from the Salmon Meadows Wetland Bank but no commitment is made regarding the number or type of credits to be purchased. In addition, the Bank has been suspended and is no longer available for credit purchases.

The Lemhi River (Snyder Ranch) location has been designed but not built and is proposed as mitigation for impacts in the South Fork Salmon River watershed. But it will not mitigate effects to the treaty-reserved resources—particularly fish species—that will be profoundly impacted by the SGP. Rather than consulting with the Tribe to find within basin mitigation to benefit the SFSR and EFSFSR populations of Chinook Salmon, the Lemhi River was chosen as offsite mitigation by Perpetua Resources. The SGP will impact the Major Population Group ("MPG") Spring/summer Chinook salmon of the SFSR and EFSFSR populations.[392] The mitigation for these impacts will benefit Chinook salmon in the Lemhi River, which are a different MPG of fish. For steelhead the mine will affect the SFSR population while the restoration will benefit the Lemhi River population.[393]

The same is true for bull trout, for which the EFSFSR provides uniquely beneficial habitat. Bull trout are currently known to use spawning and rearing habitat in at least 27 streams or stream complexes (local populations) within the SFSR core area, and these local populations are the ones that may be affected by the SGP.[394] The EFSFSR has resident and fluvial forms of bull trout. Bull trout are found throughout the Project area, above and below the Yellow Pine Pit. The EFSFSR and its tributaries are a stronghold for bull trout.[395] The EFSFSR is an important genetic refuge because, unlike other areas in the SFSR watershed, brook trout are not present, eliminating the risk of hybridization. The effects to bull trout from the SGP are not adequately offset by the Lemhi River restoration.

The Tribe is disproportionately impacted by this decision, having spent considerable time and resources to recover fishery populations in the SFSR and EFSFSR. The Tribe will not be able to access the offsite mitigation. Whereas the impacts of the SGP take place on Forest Service land the Lemhi restoration project area is located entirely on private land.[396] Tribal staff have raised these Fishery concerns repeatedly in staff-to-staff meetings with the Forest and ACOE.

Additionally, the Lemhi River project design involves encouragement of stream braiding, with uncertain outcomes. However, the applicant has calculated credits by adding the length of the main channel to the probable length of all secondary braided channels. This is not a legitimate method

[392] NMFS. 2024. Stibnite Gold Project Biological Opinion at 228.
[393] *Id.*
[394] SGP FWS BO at 115.
[395] Hogen, D.M. and D.L. Scarnecchia. 2006. Distinct fluvial and adfluvial migration patterns of a relict charr, *Salvelinus confluentus*, stock in a mountainous watershed, Idaho, USA. Ecology of Freshwater Fish l5(4): 376-387.
[396] SGP FWS BO at 3.

for calculating credits generated. Calculations for braided streams are typically based on acreage but can also be linear-foot based using the length of the main stem only.

The third offsite mitigation project involves removal or replacement of road culverts that represent POTENTIAL obstruction to aquatic organism passage (AOP). These credits are calculated as the total length of channel from the removed obstruction to the next upstream obstruction at each crossing. However, no information is given on the existing structures, existing site conditions, upstream site conditions, or downstream site conditions. USACE regulations at 33 CFR 332.7(a)(1) require mitigation sites be protected through an easement or similar instrument. For AOP projects, it is difficult to obtain such protection due to the number of landowners that could be involved.

7.3.4.2. Suggested Remedies

Remove the Salmon Meadow mitigation bank from the CMP and find suitable mitigation within the EFSFSR watershed. Remove the Snyder Ranch project from the CMP since it is out of basin and credit generation is grossly over calculated. Investigate road culvert sites to determine if they are truly obstructions. Greatly curtail credit generation calculations.

Additionally, the Forest Service should work with the Tribe to develop within basin mitigation in place of the Snyder Ranch project.

7.3.4.3. Prior Comments

The Tribe commented on wetland and stream mitigation in comments on the SDEIS on pages 54 and 88 and in its Comments on Application for Permit NWW-2013-00321 Stibnite Gold Project, Appendix B, page 38. The Lemhi Compensatory Stream and Wetland Mitigation plan is new information in the FEIS and thus not addressed in the Tribe's previous comments on the Project.

7.3.5. Objection: Onsite mitigation in the form of restoration of relocated streams is fundamentally flawed.

7.3.5.1. Issue

According to the Compensatory Mitigation Plan, a geosynthetic liner will be installed to separate stream and wetland mitigation from underlying development rock and tailings, *and groundwater*. How can you restore an intermittent or perennial stream that is physically separated from groundwater? The Mitigation Plan also states surface and groundwater will support hydrology in restored wetlands. It is clear this separation is necessary to avoid contamination, but it is equally clear the separation is incompatible with stream and wetland hydrology. In addition to the issues with hydrology, the interruption of the natural cycle of groundwater discharge and recharge negates many of the functions of both streams and wetlands, thereby reducing the "functional units" produced.

7.3.5.2. Suggested Remedies

The Forest Service should withdraw its DROD and require Perpetua Resources to redesign its Project to keep the mitigation and disposal areas separate. Rainwater still has to make its way down the mountain. The Forest Service should complete a supplemental NEPA to disclose and analyze effects of the new design.

7.3.5.3. Prior Comments

The Tribe commented on wetland and stream mitigation in comments on the SDEIS on pages 54 and 88.

7.3.6. Objection: Onsite stream mitigation proposes stream types that are known to move and adjust, and, therefore, pose a risk of exposing liner and materials below.

7.3.6.1. Issue

Many of the restored stream reaches included in the Compensatory Stream and Weland Mitigation Plan are located on fairly flat slopes over TSF and DRSF. The channels are highly sinuous and are designed to be Rosgen Type E streams. This stream type is found in broad floodplains and tends to shift position within the floodplain frequently. Although E channels are stable in an unchanging environment, they are very easy to destabilize if conditions (i.e. precipitation) change. E channels can be serious movers of dirt. Backfilled soil/growth medium is too thin and will inevitably be less compacted and resistant to erosion when compared to native soil. The Mitigation Plan says the channel will be allowed to "adjust." However, design plan sheets show the geosynthetic liner is only as wide as the design beltwidth and small berms will be constructed to hold the path. Restricting the movement of these restored channels is necessary considering what erosion in these areas could release. However, it diminishes the functions performed by the stream.

In general, it's hazardous to have channels that are intended to transport sediment located atop the TSF or DRSF. Mitigation channels situated above TSF and DRSF should be designed to avoid destabilizing or transporting tailings or development rock. In addition, the linear feet of channel located above TSF or DRSF should be removed from the mitigation plan credit calculations.

7.3.6.2. Suggested Remedies

The Forest Service should withdraw its DROD and require Perpetua Resources to redesign its Project to move hazardous waste out of river valleys. The Forest Service should complete a supplemental NEPA to disclose and analyze effects of the new design.

7.3.6.3. Prior Comments

The Tribe commented on mitigation in the SDEIS on pages 54 and 86–88.

7.3.7. Objection: Wetland mitigation plans lack enough design detail to evaluate potential for success.

7.3.7.1. Issue

Although the Compensatory Mitigation Plan gives details about stream restoration measures in both the narrative and attached plan sheets, there is next to no detail regarding onsite wetland mitigation. The Compensatory Mitigation Plan references a water model used to ensure hydrology would be adequate. This model was not included in the Compensatory Mitigation Plan. In addition, the Compensatory Mitigation Plan says the model assumes wetland mitigation areas will intercept groundwater. However, the TSF liner will provide a barrier between wetland mitigation and groundwater which is clearly in conflict with the mitigation plan. It is unknown if the model took into account manipulations to groundwater levels by mining activities. Unaccounted for changes to groundwater levels could result in inadequate hydrology for proposed groundwater driven wetlands, intermittent streams, and perennial streams.

7.3.7.2. Suggested Remedies

The Forest Service should complete a supplemental EIS to disclose and analyze detailed wetland mitigation plans and fully consider whether the source of hydrology for wetlands will actually be available.

7.3.7.3. Prior Comments

The Tribe commented on wetland and stream mitigation in its comments on the SDEIS on pages 64-67 and 87-88.

7.3.8. Objection: Revegetation plans rely too heavily on the stockpiled seed bank.

7.3.8.1. Issue

Plans for revegetation of wetland areas seem to rely heavily on the seed bank in stockpiled soils. Seed is not likely to survive if stockpiled for 20+ years. Surviving seeds will likely be early successional, weedy, or even invasive plant species. Immediate cover and stabilization is more important, which requires that a temporary and permanent seed mix be applied at a rate that would be sufficient without contributions from the seed bank.

7.3.8.2. Suggested Remedies

Require Perpetua to apply temporary and permanent seed mix at a rate that would be sufficient without contributions from the seed bank.

7.3.8.3. Prior Comments

The Tribe commented on the importance of **r**evegetation plans relying too heavily on the stockpiled seed bank in its comments on the SDEIS on pages 28-32, 102, and 108.

7.3.9. Objection: Underestimation of scour potential of streams in uncompacted backfilled soil/growth medium.

7.3.9.1. Issue

Stream restoration plan sheets include several bad confluence angles and tight meander radii, both of which create points of instability.

7.3.9.2. Suggested Remedies

Adjust confluence angles and tight meander radii to reduce scour potential. Include calculations in the Compensatory Mitigation Plan.

7.3.9.3. Prior Comments

The Tribe commented on the importance of scour potential of streams in uncompacted backfilled soil/growth medium on pages 29-30.

7.3.10. Objection: Compensatory Mitigation Plan appears to contain a loophole for reducing required mitigation post-construction.

7.3.10.1. Issue

Performance Standards and Monitoring Methods called for in the Compensatory Mitigation Plan look appropriate with one exception. The final listed Performance Standard for both stream and wetland mitigation states that the restoration will meet or exceed the predictive functional units. Wording in the "Adaptive Management Plan" section of the Compensatory Mitigation Plan allows for adjustments to Performance Standards in the event the site is not meeting expectations.

7.3.10.2. Suggested Remedies

There needs to be a firm commitment in one or both sections of the Compensatory Mitigation Plan referenced above that states that required mitigation amounts are not to be negotiated down post-Project construction due to underperforming sites.

7.3.10.3. Prior Comments

The Tribe commented on the Compensatory Mitigation Plan in its comments on the SDEIS on pages 67, 87–88, and 125-126.

7.3.11. Objection: The Compensatory Mitigation Plan does not require sufficient long-term monitoring and maintenance of the Project site.

7.3.11.1. Issue

The Long-term Management Plan requires inspection of the Stibnite site every 10 years following release from annual monitoring. In the absence of other site inspections for unrelated reasons, inspections need to occur far more frequently considering stream instability could lead to potential release of contaminants. These types of underestimates of the effort required to responsibly remediate and mitigate will lead to an underestimate of financial assurance.

7.3.11.2. Suggested Remedies

The Forest Service needs to require that long-term management include invasive species control, erosion control, replanting/reseeding problem areas, ensuring site stability, and monitoring illicit dumping. These responsibilities require multiple site visits each year and certainly following large storm events.

7.3.11.3. Prior Comments

The Tribe commented on the Compensatory Mitigation Plan on pages 87-88 of its comments on the SDEIS for the Project.

7.4. Surface Water Quality Monitoring

7.4.1. Objection: Critical surface water monitoring stations, located downstream of all impacts, are not robust enough.

7.4.1.1. Issue

The Water Resource Monitoring Plan (part of the Environmental Monitoring and Management Plan) identifies surface water monitoring stations including type of sampling and parameters to be documented. Stations located at the downstream most end of the Project are not currently listed as continuously monitoring stations, and are not listed as sampling total dissolved solids ("TDS") or metals. Since these stations are the indicators of what is happening on the entire site, and the last chance to recognize if something has gone wrong, they should be the most robust. In addition, automated notification systems should be added to continuous monitoring stations to notify key personnel of exceedances. The Tribe should be included on such notifications.

7.4.1.2. Suggested Remedies

Monitoring stations SW-1 and SW-9 in the The Water Resource Monitoring Plan need to be changed from grab sample to a continuous sample type while the mine is in operation, and need to expand parameters to include TDS and metals. The Water Resource Monitoring Plan should specify how individuals will be notified of exceedance and list who will be notified.

7.4.1.3. Prior Comments

The Tribe commented on surface water monitoring in the SDEIS on page 79 of its SDEIS comments for the Project.

7.4.2. Objection: The Water Resource Monitoring Plan offers what seems to be a preliminary plan that is subject to change upon issuance of permits.

7.4.2.1. Issue

The Water Resource Monitoring Plan details methods for monitoring groundwater quality, surface water quality, erosion control measures and stormwater BMPs. However, it continuously states

that it is subject to change when permits are issued. This makes it seem as though the plan components can be reduced or scaled back if not all elements are ultimately required under permit conditions. This monitoring plan should be the bare minimum, with permits only adding to requirements.

7.4.2.2. Suggested Remedies

Make clear in the Water Resource Monitoring Plan that Perpetua Resources is responsible for implementing all elements of the Water Resource Monitoring Plan regardless of permit requirements, and that any future revisions to the plan will only be to add permit requirements.

7.4.2.3. Prior Comments

The Tribe commented on Water Quality Monitoring in its SDEIS comments on the Project on page 105.

7.5. Purpose and Need and Alternatives Analysis Procedures - Clean Water Act

7.5.1. Objection: Purpose and Need Statement in FEIS is inconsistent with the Purpose and Need statement found in the Clean Water Act Section 404(b)(1) Alternative Analysis in the FEIS.

7.5.1.1. Issue

The 404(b)(1) Alternatives Analysis must include a well-formed "Purpose and Need" statement just like the FEIS. The document includes the following quote from the October 2021, Refined Proposed Action - ModPRO2 as both the Purpose and the Need:

> to economically develop and operate a modern gold, antimony, and silver mine to obtain financial return and benefits from its property rights and investment and supply extracted minerals for various uses. The plan would be executed while undertaking cleanup, reclamation, and restoration of legacy mining impacts before, during, and after the proposed mining activities.[397]

This quote is not in the FEIS but gives an idea of the true purpose of the Project which is financial return. Again no "need" for the Project is ever stated or supported and the nature of the purpose statement restricts the number of alternatives that fulfill the purpose. This again does not allow for an honest comparison of impacts associated with projects that are NOT mining.

7.5.1.2. Suggested Remedies

The Forest Service and USACE must provide an appropriate and supported "Purpose and Need" statement for the Project and reevaluate feasible alternatives through the lens of an unbiased project "need." The FEIS's "Purpose and Need" statement should be consistent with the USACE's

[397] Perpetua Resources Idaho, Inc. (Perpetua). 2021. Stibnite Gold Project, Valley County, Idaho, Refined Proposed Action–ModPRO2.

"Purpose and Need" statement. When evaluating permit applications for private enterprise projects, the 33 C.F.R. Part 320 regulations state:

> When private enterprise makes application for a permit, it will generally be assumed that appropriate economic evaluations have been completed, the proposal is economically viable, and is needed in the market place. However, the district engineer in appropriate cases, may make an independent review of the need for the project from the perspective of the overall public interest.[398]

Based on the nature and setting of this Project, the Forest Service and USACE must conduct an in-depth and independent review of the *need* (not just purpose) for the project from the perspective of the overall public interest and, more specifically, from the perspective of the Nez Perce Tribe.

7.5.1.3. Prior Comments

The Tribe commented on the "Purpose and Need" statement in the SDEIS on pages 6-7, 11-12, 38-39, and 73 of its SDEIS comments. The Tribe also commented on the Project's "Purpose and Need" statement on page 15 of its comments to the USACE on Perpetua Resources' Application for 404 Permit, NWW-2013-00321, dated November 6, 2023.

8. Mine Engineering

8.1. Tailings Storage Facility

8.1.1. Objection: Inadequate proposed depth of planting medium above the Tailings Storage Facility will lead to cracking of the geosynthetic clay liner installed below the linear low-density polyethylene sheeting, leading to long-term seepage into the TSF.

8.1.1.1. Issue

IDEQ requires the installation of 60-mil linear low-density polyethylene (LLDPE) sheeting over a geosynthetic clay liner (GCL) to greatly reduce or prevent the infiltration of tailings water from within the Tailings Storage Facility ("TSF") into groundwater below the TSF or to prevent water above the TSF from infiltrating the tailings stored in the TSF. These two geosynthetic membranes work in tandem: the LLDPE, after sealing the seams, provides a flexible barrier that prevents seepage, while the clay in the GCL swells to prevent any seepage not contained by the LLDPE. However, the clay in the GCL must remain moist enough that it will not crack, thus reducing its efficacy to prevent seepage.

As it stands, the FEIS fails to properly analyze the necessary depth of planting medium covering the TSF. Consequently, the proposed depth of planting medium that will cover the TSF after the composite liner system is installed will, according to relevant research, be inadequate to prevent drying and subsequent leakage through the GCL.

[398] 33 C.F.R. § 320.4(q)

Benson et al. (2007) found that using geosynthetic covers incorporating a layer of clay encased between nonwoven and woven geotextiles, laminated with a polyethylene geofilm and 769 mm (~30 inches) of planting medium planted with perennial grasses did not prevent cracking of the laminated clay, subsequently increasing annual seepage rates.[399] These findings suggest that plant roots were likely the cause of substrate dehydration and subsequent cracking in the clay layer. Based on these findings, the proposed 12 inches of planting medium above the geosynthetic covers will be insufficient to prevent drying of the bentonite layer after being planted leading to perpetual seepage while increasing annual seepage rates.

The FEIS fails to shed light on whether the proposed planting medium depth will be adequate to prevent drying of the GCL, especially considering the potential for increased climatic extremes projected into the future, which may exacerbate soil drying in only 12 inches of planting medium. According to reliable research, it will not be adequate.

8.1.1.2. Suggested Remedies

The FEIS must fully analyze the design of the TSF, including the critical aspect of liner design and efficacy. Additionally, the final record of decision should increase the proposed planting medium depth to at least 36 inches on the TSF, including simulated soil horizons during filling of planting material. This will improve plant establishment and success, while retaining moisture in the soil to hopefully prevent cracking in the GCL.

8.1.1.3. Prior Comments

The Tribe commented on the importance of reevaluating the planting medium depth above the TSF on page 78 of comments on the Project's SDEIS.

10. Cultural Resources

10.1 Heritage Resources

10.1.1 Objection: The proposed Tribal Monitoring Program for Heritage Resources fails to mitigate for destruction of Tribal cultural resources.

10.1.1.1. Issue

The proposed Tribal Monitoring Program for Heritage Resources is unreasonable because it is not "mitigation"; it merely allows a Tribal observer or monitor to be present at the site to observe the planned destruction of cultural resources. The program does not provide clear guidance on who these observers or monitors would be employed by, but it does anticipate that they are responsible for fronting all their expenses, with reimbursement two weeks after submitting reports to the mine operator.

[399] Benson, C. H., Thorstad, P. A., Jo, H. Y., & Rock, S. A. (2007). Hydraulic performance of geosynthetic clay liners in a landfill final cover. Journal of Geotechnical and Geoenvironmental Engineering, 133(7), 814-827.

Further, the mine operator proposes requiring the monitor be responsible for their own transportation and accommodations, which will be an extreme hardship for the observer or monitor. This is a remote location without hotels, restaurants, or even roads that are accessible during much of the year. In a typical scenario, the monitor will stay in a hotel in Cascade, Donnelly, or McCall, Idaho, and drive 3.5-4 hours each way, and be required to stay with a construction crew during their entire 12-hour shift.

10.1.1.2 Suggested Remedies

At a minimum, any monitoring program should serve as capacity building for the Tribe. Compensation should be paid to the Tribe to employ monitors of their choosing, and these employees should then report their findings directly to the Tribe, rather than submit monitoring reporting to the mine operator, who then provides the reports to the Forest Service, who then provides the reports to the Tribe. The mine operator should also provide transportation, housing, and food to tribal monitors when they are required to be at the mine site.

10.1.1.3 Prior Comments

The Tribe commented on the need for a reliable and proactive approach to identifying and avoiding impacts to cultural resources on page 124 of its comments on the Project's SDEIS.

10.2 Tribal Treaty Rights and Interests

10.2.1.1 Objection: The proposed collection of local native seeds and propagating them in a nursery for planting after the Project is reclaimed lacks sufficient information regarding who is responsible for any of these activities or who is responsible for native plant survival after reclamation.

10.2.1.2 Issue

According to the DROD, "Because of the amount of ground disturbance and the site-specific nature of Stibnite Gold Project reclamation, revegetation efforts will be augmented through the use of locally derived material to supplement reclamation seed mixes purchased commercially. The Project Operator will develop seed collection and reclamation nursery programs prior to or during construction or operations."[400] The description, however, does not identify who is responsible for these activities for native plant survival after reclamation.

10.2.1.3 Suggested Remedy

The Forest and mine operator should clearly define who is responsible for completion of each of these actions, and also provide guarantees for plant survival after planting in reclaimed soils.

[400] DROD at 29.

10.2.1.4 Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. This is the Tribe's first opportunity to review the language in the DROD.

10.3 Tribal Environmental Monitoring

10.3.1.1. Objection: The proposed Tribal Monitoring Program for Environmental Resources fails to mitigate for the destruction of Tribal environmental resources.

10.3.1.1 Issue

The only detailed monitoring program provided is for heritage resources is on pages 27-29 of the DROD, but presumably, the Forest expects that monitoring programs for environmental resources would be similar. The programs do not provide clear guidance on who these monitors would be employed by, but it does anticipate that they are responsible for fronting all their expenses, with reimbursement two weeks after submitting reports to the mine operator.

10.3.1.2. Suggested Remedies

At a minimum, any monitoring program should serve capacity building for the Nez Perce Tribe. Compensation should be paid to the Nez Perce Tribe to employ observers or monitors of their choosing, and these Tribal employees can then report their findings directly to the Tribe, rather than submit monitoring reporting to the mine operator, who then provides the reports to the Forest Service, who then provides the reports to the Tribe.

The mine operator proposes to address the remoteness problem by bussing their staff to the mine site and building a bunkhouse to feed and house their staff. At a minimum, these same accommodations should be available to the tribal observers or monitors when they are at the mine site.

10.3.1.3. Prior Comments

This objection relates to an issue that arose after the previous designated opportunities for comments. This is the Tribe's first opportunity to review the language in the DROD.