

July 20, 2017

Mr. Keith Lannom, Forest Supervisor Payette National Forest 500 N. Mission St., Bldg. 2 McCall, ID 83638

Comments submitted via webform at <u>http://www.fs.usda.gov/goto/payette/StibniteGold</u> and via mail to Payette National Forest, ATTN: Forest Supervisor Keith Lannom - Stibnite Gold EIS, 500 N. Mission St., Bldg. 2, McCall, ID 83638.

# Re: Nez Perce Tribe's Scoping Comments on the Stibnite Gold Plan of Operations EIS

Dear Mr. Lannom,

On behalf of the Nez Perce Tribe ("Tribe"), thank you for the opportunity to comment on the Payette National Forest's Stibnite Gold Plan of Operations Environmental Impact Statement ("Stibnite Gold Project" or "Project").

The Tribe's paramount goal is to protect and advance its treaty-reserved rights and cultural interests in its aboriginal territory. As the Payette National Forest ("Forest") is aware, the Stibnite Gold Project is located entirely within the Tribe's aboriginal territory and is subject to the rights that the Tribe reserved, and the United States secured, in its 1855 Treaty.<sup>1</sup> The Project area is also located within the Tribe's area of exclusive use and occupancy, as adjudicated by the Indian Claims Commission.<sup>2</sup> The Forest thus has a trust responsibility to ensure that its actions, including implementation of this Project, are fully consistent with the 1855 Treaty, executive orders, departmental regulations, and other federal laws implicating the United States' unique relationship with the Tribe. It also has a responsibility to avoid or mitigate impacts to culturally significant resources and sites. The Tribe offers the following comments to assist the Forest in fulfilling this duty and looks forward to ongoing government-to-government discussions and consultation in keeping with Executive Order 13175, dated November 6, 2000.

<sup>&</sup>lt;sup>1</sup> Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957 (1859).

<sup>&</sup>lt;sup>2</sup> Nez Perce Tribe v. United States, Docket #175, 18 Ind. Cl. Comm. 1.

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Thank you again for the opportunity to comment on this Project. Please send the Forest's written response to Amanda Rogerson, Staff Attorney, P.O. Box 305, Lapwai, ID 83540 or to amandar@nezperce.org. Please also contact Ms. Rogerson at 208.843.7355 with any questions or concerns.

Sincerely,

ly Mary Jane Miles

Chairman

Enclosure

# Nez Perce Tribe Scoping Comments Stibnite Gold Plan of Operations Environmental Impact Statement

# I. NEZ PERCE TRIBE'S INTEREST

Since time immemorial, the Nez Perce Tribe ("Tribe") has occupied and used over 13 million acres of lands now comprising north-central Idaho, southeast Washington, northeast Oregon, and parts of western Montana. Tribal members engaged in fishing, hunting, and gathering across their vast aboriginal territory, and these activities still play a major role in the culture, religion, subsistence, and commerce of the Tribe.

In 1855, the United States entered into a treaty with the Tribe ("1855 Treaty").<sup>1</sup> In its 1855 Treaty, the Tribe explicitly reserved, and the United States secured, among other guarantees, a permanent homeland as the 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."<sup>2</sup>

The lands and waters of the Payette National Forest ("Forest") are part of the vast aboriginal territory ceded by the Tribe and over which the Tribe has treaty-reserved rights. The Stibnite Gold Plan of Operations Environmental Impact Statement ("Stibnite Gold Project" or "Project") is located on the Krassel Ranger District of the Forest and thus is located on land subject to the Tribe's treaty-reserved rights. The Project is also within the area determined by the Indian Claims Commission to have been exclusively used and occupied by the Tribe.<sup>3</sup>

The Tribe's treaty-reserved right to take terrestrial and aquatic resources on open and unclaimed land presumes the continued existence of those resources.<sup>4</sup> Thus, the 1855 Treaty secures to the Tribe the continued existence of those biological conditions necessary for the resources that are the subject matter of the treaties.<sup>5</sup> Harm to habitat for treaty-reserved resources directly harms the Tribe and its members. The Tribe is concerned that the Stibnite Gold Project will further degrade habitat on the Forest for its treaty-reserved resources and that the Project will undo some of the Tribe's work on the Forest to protect, manage, and restore its resources.

<sup>&</sup>lt;sup>1</sup> Treaty with the Nez Perces, June 11, 1855, 12 Stat. 957 (1859).

<sup>&</sup>lt;sup>2</sup> *Id*. at art. 3.

<sup>&</sup>lt;sup>3</sup> Nez Perce Tribe v. United States, Docket #175, 18 Ind. Cl. Comm. 1.

<sup>&</sup>lt;sup>4</sup> See Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658, 678-79, (1979) (hereinafter referred to as "Fishing Vessel")

<sup>&</sup>lt;sup>5</sup> See Kittitas Reclamation District v. Sunnyside Valley Irrigation District, 763 F.2d 1032 (9th Cir. 1985), cert. denied, Sunnyside Valley Irrigation District v. United States, 474 U.S. 1032 (1985); U.S. v. Washington, 853 F.3d 946 (9th Cir. 2017)

#### A. Tribe's Restoration Work on the Forest

The Tribe is a co-manager of its treaty-reserved resources.<sup>6</sup> As co-manager, the Tribe has devoted substantial time, effort, and resources to the recovery and management of threatened resources within its treaty territory, including on the Forest. The Tribe's Department of Natural Resources and Department of Fisheries Resources Management ("DFRM") assist Tribal leadership in protecting treaty-reserved resources by conducting research and informing the development of federal, state, and Tribal projects and policies. Importantly, these departments also preserve, restore, expand, and manage wildlife populations and their habitat and have completed the following work on the Forest and in the Project area:

# 1. Wildlife

The Forest provides a range of habitats suitable for bighorn sheep and gray wolf populations, which the Tribe has worked hard to restore and sustain. The Tribe values protection of its wildlife management and restoration legacy alongside the protection of ecological communities and broader landscape on which bighorn sheep and gray wolves depend. These populations and their habitats as much as it values the protection of its wildlife management and restoration work on the Forest.

The Tribe is nationally recognized for its leadership in the conservation of bighorn sheep and recovery of gray wolves. Bighorn sheep populations roam more than 25 miles up and down the Salmon River Canyon through the Frank Church-River of No Return Wilderness Area, north and northeast of the Project. Importantly, this is one of the last remaining native populations in the region and are threatened by disease and habitat degradation. Collaborative research led by the Tribe over a decade ago, and the Tribe's ongoing advocacy for the population, has led to the Forest phasing out domestic sheep grazing on 70,000 acres of bighorn habitat. Because this was a vital step for bighorn sheep recovery, it is imperative that the Forest protect all bighorn sheep habitat on the Forest.

Gray wolves, extirpated in Idaho in the 1930s, gained federal protection in 1967 and were listed as endangered under the Endangered Species Act ("ESA") in 1973. With the support of several partners, the Tribe led the recovery and reintroduction of gray wolves in central Idaho in the 1990s, including on the Forest. Today, population numbers exceed recovery goals. Recovery and delisting of gray wolves is one of the nation's greatest conservation achievements. Protection of wolf habitat, which includes minimizing human disturbance, needs the utmost attention from the Forest.

#### 2. Fisheries

Forest lands and waters provide irreplaceable habitat for tribal resources, including imperiled stocks of spring/summer Chinook salmon, steelhead, and bull trout. Unfortunately, many of the resources sacred to the Tribe are at risk of disappearing on, and downstream of, the Forest. The Stibnite Gold Project has the potential to further negatively affect these already imperiled treaty-reserved resources.

<sup>&</sup>lt;sup>6</sup> U.S. v. Washington, 384 F. Supp. 312 (W.D. Wash. 1974).

The Project is located just downstream of the headwaters of the East Fork of the South Fork of the Salmon River ("EFSFSR"). The EFSFSR and its tributaries (including Meadow Creek) flow through the Stibnite Gold Project site and across much of the Forest, eventually joining the South Fork Salmon River ("SFSR"). The SFSR eventually joins the Salmon River, which merges with the Snake River at the Idaho-Oregon border on the Wallowa-Whitman National Forest. The Snake River, in turn, flows into the Columbia River just downstream of Pasco, Washington. The Columbia River reaches the Pacific Ocean near Astoria, Oregon.

In the 1940s, an independent population of spring/summer Chinook salmon in the upper EFSFSR were extirpated by mining operations. Other populations of Chinook salmon, steelhead, and bull trout in the EFSFSR are also threatened. These include Snake River spring/summer Chinook salmon, which were also listed as threatened under the ESA in 1992, Snake River Basin steelhead, which were listed as threatened under the ESA in 1997, and Columbia River bull trout, which were listed as threatened under the ESA in 1998.

The designated critical habitat for Snake River spring/summer Chinook salmon consists of river reaches in the Salmon River and all tributaries presently or historically accessible, including the EFSFSR up to the Stibnite Glory Hole within the Stibnite Gold Project boundary. Juvenile steelhead also occur throughout the EFSFSR including, up to the Stibnite Glory Hole and in tributaries to the EFSFSR such as Sugar Creek. Streams proposed as critical habitat within the Project area for Columbia River bull trout include the EFSFSR downstream and upstream of the Stibnite Glory Hole at Stibnite as well as its tributaries, Meadow Creek, West End Creek, and Fiddle Creek that are located within the Project area.

The decimation of fisheries has seriously impacted the tribal economy. Consequently, the Tribe has taken an active role in restoring Chinook salmon runs in the EFSFSR and the SFSR for over 20 years, with financial support from the Bonneville Power Administration. The Tribe's DFRM spends conservatively \$2.5 million annually restoring Chinook salmon runs in the EFSFSR and SFSR. The Tribe's DFRM restoration activities include: hatchery supplementation, fishery research, and watershed restoration.

Tribal harvest in the SFSR and its tributaries—including the Secesh River, Lick Creek, Johnson Creek, and the EFSFSR—typically occurs from mid-June through August. Because the Tribe manages its harvest in a manner protective of ESA-listed fish returns, it closes these fisheries when either fish population numbers are low or the shared harvest allocation (between the state of Idaho and the Tribe) is met. A map showing some of the areas of the Tribe's restoration activities is provided below as Figure 1.



**Figure 1.** Location of some of the Tribe's fishery restoration activities in relation to the proposed Stibnite Gold Project.

#### II. NEZ PERCE TRIBE'S SCOPING COMMENTS

The following comments address the legal deficiencies of Midas Gold's Stibnite Gold Project Plan of Restoration and Operations ("PRO") and the Forest's responsibilities under the National Environmental Policy Act ("NEPA") and federal public land and environmental law.

#### A. PRO's Legal Deficiencies Under NEPA

#### 1. The PRO is Not a Substitute for a Thorough and Comprehensive EIS

The PRO is not a substitute for a thorough and comprehensive Environmental Impact Statement ("EIS"). As discussed more fully below, the PRO is vague, does not provide a comprehensive assessment of baseline conditions at the site, fails to fully assess the environmental impacts of the proposed Project, and does not fully evaluate alternatives to the proposed actions.

Mining plans of operations only provide basic information about the proposals to mine.<sup>7</sup> Upon completion of the basic environmental analysis of an operating plan, the federal government determines whether an EIS is required.<sup>8</sup> That decision is based on "whether the nature of operations is prospecting, exploration, development, or processing, and on the scope of operations (such as size of operations, construction required, length of operations and equipment required), resulting in varying degrees of disturbance to vegetative resources, soil, water, air or wildlife."<sup>9</sup>

Here, the Forest must prepare a comprehensive EIS that establishes an accurate baseline assessment at the site, assesses the direct, indirect, and cumulative impacts associated with the Project, undertakes a complete analysis of all reasonable alternatives, and prepares a mitigation plan. This is because the PRO includes virtually all possible mining activities (including exploration, development, and processing of ore), encompasses nearly 30,000 acres of active operations, extends for 15 years, and uses all kinds of heavy mining equipment. The Project will have significant impacts to treaty-reserved resources, including, but not limited to, vegetative resources, soil, water, air, and wildlife, and these impacts must be fully analyzed. A more detailed description of the EIS requirements for this Project is provided below.

#### 2. The PRO's "Purpose and Need" Statement is Unlawful

Under NEPA, "an agency cannot restrict its analysis to those 'alternative means by which a particular applicant can reach *his* goals," requiring instead that agencies have "the duty under NEPA to exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project."<sup>10</sup> "One obvious way for an agency to slip past the strictures of NEPA is to contrive a purpose so slender as to define competing 'reasonable alternatives' out of

<sup>&</sup>lt;sup>7</sup> See 36 C.F.R. §228.4(c).

<sup>&</sup>lt;sup>8</sup> 36 C.F.R. §228.4(f).

<sup>&</sup>lt;sup>9</sup> Id.

<sup>&</sup>lt;sup>10</sup> Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997) (internal citations omitted) (emphasis in original).

consideration (and even out of existence)."<sup>11</sup> An unlawfully stated purpose and need is a NEPA violation independent of the other violations that may flow from a contrived purpose.<sup>12</sup>

The PRO contains the following statement of purpose and need: "The purpose and need for the Project is for Midas Gold to economically develop and operate a modern mining operation at the Stibnite site to obtain financial return and benefits from its property rights and investment and supply extracted minerals for various uses."<sup>13</sup> The PRO goes on to state, "projects with lower rates of return are unlikely to obtain the financing necessary to develop and therefore would not meet Midas Gold's purpose and need."<sup>14</sup>

The Forest must formally reject this statement of purpose and need for the Project. As discussed herein, the Forest must adequately protect the land from adverse environmental impacts even if those protections make the Project uneconomic. To accede to Midas Gold's self-serving statement of purpose and need would prejudice the Forest's ability to protect its land and thus render the entire NEPA process arbitrary, capricious, and contrary to law. The Forest must be prepared to craft a purpose and need and contemplate modifying, dramatically if necessary, Midas Gold's PRO.

# 3. The PRO Contains Incomplete Baseline Data and Analysis

The PRO is based in large part on Midas Gold's assertion that the environmental conditions at the Project site will be greatly improved upon completion of operations and reclamation.<sup>15</sup> However, such claims can only be verified if the current baseline conditions of all potentially affected resources are fully analyzed. Although the PRO mentions that some baseline water quality sampling has occurred, it gives no details or results.<sup>16</sup>

Such information/analysis is required by NEPA. The Forest is required to "describe the environment of the area(s) to be affected or created by the alternatives under consideration."<sup>17</sup> The establishment of the baseline conditions of the affected environment is a fundamental requirement of the NEPA process and is critical to any NEPA analysis. "Without establishing the baseline conditions which exist [...] before [a project] begins, there is simply no way to determine what effect the [project] will have on the environment and, consequently, no way to comply with NEPA."<sup>18</sup>

"[W]ithout [baseline] data, an agency cannot carefully consider information about significant environment impacts. Thus, the agency 'fail[s] to consider an important aspect of the problem,'

<sup>&</sup>lt;sup>11</sup> *Id.* at 666, *quoted in Davis v. Mineta*, 302 F.3d 1104, 1119 (10th Cir. 2002).

<sup>&</sup>lt;sup>12</sup> Id.

<sup>&</sup>lt;sup>13</sup> PRO at ES-1.

<sup>&</sup>lt;sup>14</sup> PRO at G-16.

<sup>&</sup>lt;sup>15</sup> *See, e.g.*, PRO at ES-8 to 12.

<sup>&</sup>lt;sup>16</sup> PRO Sections 15.3 and 15.4.

<sup>&</sup>lt;sup>17</sup> 40 C.F.R. §1502.15

<sup>&</sup>lt;sup>18</sup> Half Moon Bay Fishermans' Mktg. Ass'n v. Carlucci, 857 F.2d 505, 510 (9th Cir. 1988), quoted in Great Basin Resource Watch v. Bureau of Land Mgmt., 844 F.3d 1095, 1101 (9<sup>th</sup> Cir. 2016).

resulting in an arbitrary and capricious decision."<sup>19</sup> As a practical matter, this necessarily requires that all baseline data/analysis be completed before the public comment period on the Draft EIS begins to allow for full public review. This means that the public, and the Tribe, have full access to all data, in order to properly meet the Forest's public comment duties under NEPA, as well as the agency's government-to-government consultation duties under the National Historic Preservation Act ("NHPA") and Presidential Executive Orders.

In Idaho, the federal courts have required the Forest Service to obtain baseline groundwater studies, data, and analysis when reviewing a mineral-related drilling plan under NEPA and the agency's mining regulations at 36 C.F.R. Part 228. In *Idaho Conservation League v. U.S. Forest Serv.*, the court concluded that the Forest Service acted arbitrarily and capriciously by authorizing exploratory mineral drilling without fully analyzing the baseline groundwater and hydrology.<sup>20</sup> Such analysis should include "a baseline hydrogeologic study to examine the existing density and extent of bedrock fractures, the hydraulic conductivity of the local geologic formations, and [measures of] the local groundwater levels to estimate groundwater flow directions."<sup>21</sup>

In a more recent Idaho case, the court found that the Forest Service failed to conduct the required baseline analysis for a sensitive plant species, Sacajawea's bitterroot (*Lewisia sacajaweana* or "LESA"). "The Forest Service cannot know the impact the Project will have, let alone conclude whether or not its impact is significant, without having accurate baseline data for LESA in the Project Area."<sup>22</sup> A recent federal court decision in Oregon reiterated the NEPA requirement for a detailed groundwater baseline analysis in an Environmental Assessment ("EA"). "Ninth Circuit cases acknowledge the importance of obtaining baseline condition information before assessing the environmental impacts of a proposed project."<sup>23</sup>

For the Stibnite PRO, the EIS must contain full and complete data sets, and analysis, for the following resources (at a minimum): (1) detailed water quality and quantity data for all potentially affected surface and ground waters, including full parameter/pollutant data sets, and hydrological conditions on the surface and subsurface; (2) air quality data and analysis for all potentially emitted pollutants including but not limited to all criteria pollutants subject to National Ambient Air Quality Standards, hazardous air pollutants, and Volatile Organic Compounds; (3) fish and wildlife populations, including data/analysis on migrations/movements and population trends for all endangered, threatened, sensitive, and indicator species that may reside in, or travel to/through the area. This would include data/studies of benthic macroinvertebrates and other aquatic life necessary for a sustainable stream environment and is related to the baseline conditions for surface water quality noted above; (4) all endangered, threatened, sensitive, and indicator plant species; (5) springs and seeps; and (6) recreational and cultural usage of the site and surrounding area.

<sup>&</sup>lt;sup>19</sup> Northern Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067, 1085 (9th Cir. 2011) (internal citations omitted).

<sup>&</sup>lt;sup>20</sup> Idaho Conservation League v. U.S. Forest Serv., 2012 WL 3758161, at \*17 (D. Idaho Aug. 29, 2012).

<sup>&</sup>lt;sup>21</sup> *Id.* at 16. *See also Shoshone-Bannock Tribes of the Fort Hall Reservation v. U.S. Dept. of Interior*, 2011 WL 1743656, at \*10 (D. Idaho May 3, 2011).

<sup>&</sup>lt;sup>22</sup> Idaho Conservation League v. U.S. Forest Serv., 2016 WL 3814021, at \*10 (D. Idaho July 11, 2016).

<sup>&</sup>lt;sup>23</sup> *Gifford Pinchot Task Force v. Perez*, 2014 WL 3019165, at \*28 (D. Or. July 3, 2014) (The court found that the Forest Service/BLM EA for a mineral exploration project failed to obtain and analyze baseline water quality data in violation of NEPA).

In order to accurately reflect current conditions, this baseline data gathering and analysis should fully cover multiple years and seasons for each parameter and resource covered. For example, for surface and groundwater quality, this would necessarily encompass detailed data gathering and analysis of conditions during spring runoff, late summer low flows, winter conditions, etc., and covering multiple years in order to ascertain yearly fluctuations.

Importantly for the Stibnite PRO, the agency cannot rely on future monitoring or mitigation measures to avoid full compliance with NEPA's baseline data/analysis requirements. This tactic has been repeatedly rejected by the federal courts. "The Defendants' reliance on the Project's design features, monitoring, and mitigation measures does not cure the failure to re-evaluate and analyze the Project's impact on LESA following the Grimes Fire."<sup>24</sup> An Idaho federal court highlighted the reason why monitoring and mitigation measures, no matter how potentially successful, do not satisfy NEPA's baseline data/analysis requirements:

Without accurate baseline data before the Project begins, it is impossible to know whether and to what extent the Project's activities will impact LESA even with the proposed design features, monitoring, and mitigation features. As thorough as these features of the Project appear to be, the Forest Service's failure to re-evaluate LESA's current baseline leaves too much unknown for the Forest Service to have concluded that the Project will not have a significant impact on the LESA population.

Similarly, the implementation and effectiveness monitoring may be valuable to determine the appropriateness of the mitigation measures, but they can not be used to replace the "hard look" the Forest Service is required to take before approving the Project. NEPA requires the Forest Service to analyze the impact the Project's activities will have on the environment and, in particular here, on the LESA plant and habitat. The Forest Service has not done so. Further, the monitoring will not ameliorate potentially serious negative impacts of the Project on LESA. The monitoring will only show the damage that is done by the Project with the possibility of adjustments being made after the fact if the Project's activities are more damaging than desired. This is not what was contemplated by NEPA.<sup>25</sup>

# 4. The PRO Includes an Incorrect Assumption of "Rights" Under the 1872 Mining Law

The PRO states that the 1872 Mining Law and other laws "establish the statutory right to search for, develop, and extract mineral deposits on, public domain lands open to mineral entry.<sup>26</sup>

<sup>&</sup>lt;sup>24</sup> Idaho Conservation League, 2016 WL 3814021, at \*10.

<sup>&</sup>lt;sup>25</sup> Id. at \*11. See also Gifford Pinchot Task Force, 2014 WL 3019165, at \* 33 ("The mitigation measures incorporated into Alternative 3, like the same measures in *ICL*, likely go a long way to controlling possible contamination of groundwater, but, without baseline data, the impact to groundwater remains uncertain because there is no information as to the current conditions of the actual Project area. As a result, there is no way to determine what effect the action will have on the environment and thus, 'no way to comply with NEPA.' *Half Moon Bay*, 857 F.2d at 510.").
<sup>26</sup> PRO at ES-26.

According to the PRO, Midas Gold is "entitled" to develop its mining claims.<sup>27</sup> The May 10, 2017, Forest scoping notice, for instance, states: "The General Mining Act of 1872 and subsequent amendments to the Act established the statutory right to search for, develop and extract mineral deposits on public domain lands open to mineral entry." This statement is an assumption of "statutory rights" and "entitlement" to extract minerals, without evidence that Midas Gold has met the statutory criteria for such "rights." This assumption improperly skews the Forest's analysis and permitting authority, especially in light of the Forest Service's obligation to protect the Tribe's treaty-reserved resources.

Regarding the alleged "rights" asserted by the company, Midas Gold claims that it has "valuable and valid mineral rights"<sup>28</sup> and the PRO lists over 1,400 unpatented claims covering the site (the vast majority are lode claims; 50 are millsite claims).<sup>29</sup> Yet, the PRO provides no evidence that any of these mining claims are valid under the 1872 Mining Law. In fact, Midas Gold admits that "many of the mineralized resource areas within the Project area are not fully defined."<sup>30</sup>

Where Project lands have not been verified to contain, or do not contain, such rights, there is no "right/entitlement to mine" and the Forest's more discretionary multiple-use authorities apply.<sup>31</sup> A proper application of the Forest's multiple use, public interest, and sustained yield mandates to those areas without valid claims should result in a very different Project review, alternatives development, and level of protection for the area's public land resources and values than to those areas with valid claims. The *Mineral Policy Center v. Norton*\_court decision specifically recognized the federal government's duty to apply its broader, multiple use authority when mineral development operations are proposed on lands not subject to valid and perfected claims:

While a claimant can explore for valuable mineral deposits before perfecting a valid mining claim, without such a claim, [a claimant] has no property rights against the United States (although [a claimant] may establish rights against other potential claimants), and [a claimant's] use of the land may be circumscribed beyond the UUD standard because it is not explicitly protected by the [1872] Mining Law.<sup>32</sup>

Although the unnecessary or undue degradation ("UUD") standard was at issue in *Mineral Policy Center v. Norton* (Bureau of Land Management's ("BLM") duty to "prevent unnecessary or undue degradation" under the Federal Land Policy and Management Act), the holding that development "rights" under the mining laws only apply to lands covered by valid claims applies equally to the Forest and BLM. The court was equally clear as to what was required to "perfect" a mining claim:

The Mining Law gives individuals the right to explore for mineral resources on lands that are "free and open" in advance of having made a "discovery" or perfected

<sup>&</sup>lt;sup>27</sup> Id.

<sup>&</sup>lt;sup>28</sup> PRO at G-9.

<sup>&</sup>lt;sup>29</sup> PRO Appendix C.

<sup>&</sup>lt;sup>30</sup> PRO at ES-22.

<sup>&</sup>lt;sup>31</sup> See Mineral Policy Center v. Norton, 292 F.Supp.2d 30, 46-51 (D.D.C. 2003) (This case dealt with U.S. Department of Interior Department, but its analysis regarding the 1872 Mining Law applies to Forest Service lands).

<sup>&</sup>lt;sup>32</sup> *Mineral Policy Center v. Norton*, 292 F.Supp.2d at 47-48 (emphasis added).

a valid mining claim. *United States v. Locke*, 471 U.S. 84, 86, 105 S.Ct. 1785, 85 L.Ed.2d 64 (1985). The Mining Law provides, however, that a mining claim cannot be perfected "until the discovery of the vein or lode." 30 U.S.C. § 23.<sup>33</sup>

As a result:

# Before an operator perfects her claim, because there are no rights under the Mining Law that must be respected, BLM has wide discretion in deciding whether to approve or disapprove of a miner's proposed plan of operations.<sup>34</sup>

Thus, while giving a limited right to initially explore for minerals on public lands, the 1872 Mining Law specifically restricts the right of long-term occupation and development on mining claims to those claims where there has been a discovery of a valuable mineral deposit.<sup>35</sup> "[A]ll valuable mineral deposits in lands belonging to the United States [...] shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase."<sup>36</sup> For millsites, the law creates the "subordinate ... right to locate up to five acres of nonmineral land for mill site use in association with each valid mining claim, 30 U.S.C. §42."<sup>37</sup>

Mining claims on federal land are "valid against the United States if there has been a discovery of [a valuable] mineral within the limits of the claim, if the lands are still mineral, and if other statutory requirements have been met."<sup>38</sup> Importantly, however, a mining claim location, or staking of the claim, does not give the presumption of a discovery or any rights. "Location is the act or series of acts whereby the boundaries of the claim are marked, etc., but it confers no right in the absence of discovery, both being essential to a valid claim."<sup>39</sup>

Except for limited rights to explore for minerals, absent the discovery of a valuable mineral deposit on a mining claim, the claim is not valid, and the claimant holds no rights under the 1872 Mining Law to use or occupy the claim:

Thus, although a claimant may explore for mineral deposits before perfecting a mining claim, without a discovery, the claimant has no right to the property against the United States or an intervenor.<sup>40</sup>

<sup>&</sup>lt;sup>33</sup> *Id.* at 46, n. 19.

<sup>&</sup>lt;sup>34</sup> *Id.* at 48 (emphasis added).

<sup>&</sup>lt;sup>35</sup> 30 U.S.C. §§22, 26.

<sup>&</sup>lt;sup>36</sup> 30 U.S.C. §22 (emphasis added).

<sup>&</sup>lt;sup>37</sup> Mineral Policy Center v. Norton, 292 F.Supp.2d at 47.

<sup>&</sup>lt;sup>38</sup> Best v. Humboldt Placer Mining Co., 371 U.S. 334, 336 (1963) (internal citation omitted).

<sup>&</sup>lt;sup>39</sup> Cole v. Ralph, 252 U.S. 286, 296 (1920).

<sup>&</sup>lt;sup>40</sup> Freeman v. U.S. Dept. of Interior, 37 F.Supp.3d 313, 320 (D.D.C. 2014) (internal citations; 30 U.S.C. § 23 (mining claim perfected when there is a "discovery of the vein or lode"); see also Cole v. Ralph, 252 U.S. 286, 295–96 (1920); Waskey v. Hammer, 223 U.S. 85, 90 (1912) (noting that discovery is "a prerequisite to the location of the claim"); Am. Colloid Co. v. Babbitt, 145 F.3d 1152, 1156 (10th Cir.1998) ("Before one may obtain any rights in a mining claim, one must 'locate' a valuable deposit of a mineral."); Mineral Policy Ctr. v. Norton, 292 F.Supp.2d 30, 48 (D.D.C. 2003) ("A mining claim does not create any rights against the United States and is not valid unless and until all requirements of the mining laws have been satisfied." quoting Skaw v. United States, 13 Cl. Ct. 7, 28 (1987), aff'd, 847 F.2d 842 (Fed. Cir. 1988), cert. denied, 109 S.Ct. 141 (1988).

#### As such:

[U]npatented claims amount to a potential property interest, since it is the discovery of a valuable mineral deposit and satisfaction of statutory and regulatory requirements that bestows possessory rights. *See Ickes v. Underwood*, 141 F.2d 546, 548–49 (D.C. Cir. 1944) (until there has been a determination that there has been a valuable discovery, claimants had only a gratuity from the United States); *Payne v. United States*, 31 Fed.Cl. 709, 711 (1994) (rejecting plaintiff's argument that in the absence of a challenge to validity, the court must take at face value their assertion that claims are supported by an adequate mineral discovery).<sup>41</sup>

Accordingly, use and occupancy of mining claims for ancillary development activities (e.g., processing facilities, waste disposal) on lands not covered by valid claims, like all other uses of public land, are not governed by the 1872 Mining Law. Rather, these uses are governed by the full range of public land statutes applicable to the appropriate agency (i.e., such as Federal Land Policy and Management Act's discretionary authorities). "Before an operator perfects her claim, because there are no rights under the Mining Law that must be respected, BLM has wide discretion in deciding whether to approve or disapprove of a miner's proposed plan of operations."<sup>42</sup> As held by the Interior Board of Land Appeals (internal Department of Interior adjudicative panel): "Rights to mine under the general mining laws are derivative of a discovery of a valuable mineral deposit and, absent such a discovery, denial of a plan of operations is entirely appropriate."<sup>43</sup>

Thus, the Forest cannot in this case determine that Midas Gold is "entitled" under the 1872 Mining Law to use its lode claims for waste dumping, tailings, etc., when there is no evidence in the record that those claims are supported by any rights under the 1872 Mining Law against the United States.

As stated in the Forest Service Manual: "In order to successfully defend rights to occupy and use a claim for prospecting and mining, a claimant must meet the requirements as specified or implied by the mining laws, in addition to the rules and regulations of the Forest Service. These require a claimant to: ... 2. Discover a valuable mineral deposit. ... (and) 7. Be prepared to show evidence of mineral discovery."<sup>44</sup> Under the 1872 Mining Law, in order to be valid, mining claims must contain the "discovery of a valuable mineral deposit."<sup>45</sup> According to the Forest Service Manual, "[a] claim unsupported by a discovery of a valuable mineral deposit is invalid from the time of location, and the only rights the claimant has are those belonging to anyone to enter and prospect on National Forest lands."<sup>46</sup>

The term "valid claim" often is used in a loose and incorrect sense to indicate only that the ritualistic requirements of posting of notice, monumentation, discovery work, recording, annual assessment work, payment of taxes, and so forth, have been

<sup>&</sup>lt;sup>41</sup> *Id*. at 321.

<sup>&</sup>lt;sup>42</sup> *Mineral Policy Ctr.v. Norton*, 292 F.Supp.2d at 48.

<sup>&</sup>lt;sup>43</sup> Great Basin Mine Watch et al., 146 IBLA 248, 256 (1998), 1998 WL 1060687, at \*8 (November 9, 1998).
<sup>44</sup> Forest Service Manual §2813.2 (emphasis added) (available at:

https://www.fs.usda.gov/Internet/FSE\_DOCUMENTS/fseprd533980.pdf).

<sup>&</sup>lt;sup>45</sup> 30 U.S.C. § 23.

<sup>&</sup>lt;sup>46</sup> Forest Service Manual §2811.5.

met. This overlooks the basic requirement that the claimant must discover a valuable mineral deposit. Generally, a valid claim is a claim that may be patented.<sup>47</sup>

Thus, unless and until Midas Gold provides verifiable evidence that each of its lode claims contains the requisite discovery of a valuable mineral deposit, the Forest cannot assume that the company has "statutory rights" and is "entitled" to use public lands under the 1872 Mining Law, as opposed to the Forest's much broader multiple-use and public interest authorities.

# B. <u>The Forest's Additional Legal Responsibilities Under NEPA</u>

# 1. The Forest Must Fully Analyze All Reasonable Alternatives in the EIS

NEPA requires the Forest to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources."<sup>48</sup> The agency must "[r]igorously explore and objectively evaluate all reasonable alternatives" to the proposed action.<sup>49</sup>

The EIS should provide a clear discussion and robust assessment of each alternative and be supported by a robust and substantive alternatives assessment. The document should discuss potential environmental impacts of the alternatives in comparative form, in order to clearly define the issues among the options for decision makers and the public.<sup>50</sup> Reasonable alternatives could include, but are not necessarily limited to, alternative siting, designs, or configurations for major mining facilities such as: underground mining rather than open pit; waste rock piles, including waste rock pile liners to collect leachate; tailings storage facilities; access roads; or storage ponds; a smaller project wherein only some of the proposed actions are approved; and modifications to the proposed reclamation and closure methodologies and timelines. The EIS should discuss the alternatives in the context of the Forest authorities under the Idaho Surface Mining Act, the Organic Act, the Federal Land Policy and Management Act, and other relevant statutes and regulations.

The fact that an alternative may cost Midas Gold more does not mean that it is "unreasonable" under NEPA. Midas Gold has set an arbitrary financial rate of return threshold of 20% to reject otherwise reasonable alternatives.<sup>51</sup> The Forest may not accept Midas Gold's self-selected and arbitrary monetary threshold for rejecting viable alternatives to the PRO. The Forest must assess all reasonable alternatives that reduce impacts to the site.

<sup>&</sup>lt;sup>47</sup> Id.

<sup>&</sup>lt;sup>48</sup> 42 U.S.C. § 4332(E); see also 40 C.F.R. § 1508.9(b).

 <sup>&</sup>lt;sup>49</sup> 40 C.F.R. § 1502.14(a). See City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990); Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1217 (9th Cir. 2008).
 <sup>50</sup> 40 CFR 1502.14.

<sup>&</sup>lt;sup>51</sup> PRO at G-16.

#### 2. Any Project the Forest Approves Must Comply with Forest Service Mining Regulations, the Organic Act, and Federal and State Environmental Laws

Even if the Forest reviews the PRO under the erroneous assumption that Midas Gold is "entitled" under the 1872 Mining Law to use its claims for waste dumping, tailings, and other activities, any proposed approval of any action alternative must comply with the Organic Act and the Forest Service's implementing mining regulations at 36 C.F.R. Part 228. The Forest's authority to regulate mining operations is governed by the Organic Act, among other laws, which authorizes the agency to promulgate rules and regulations for the National Forests in order "to regulate their occupancy and use and to preserve the forests thereon from destruction."<sup>52</sup>

As noted by the Ninth Circuit in *Clouser v. Espy*, a leading case on the Forest Service's authority over mining, the Organic Act "specifies that persons entering the national forests for the purpose of exploiting mineral resources 'must comply with the rules and regulations covering such national forests."<sup>53</sup> The relevant portions of the Organic Act state that:

The Secretary of Agriculture shall make provisions for the protection against destruction by fire and depredations upon the public forests and national forests [...] and he may make such rules and regulations and establish such service as will insure the objects of such reservations, namely, to regulate their occupancy and use and to preserve the forests thereon from destruction.<sup>54</sup>

However, under the Organic Act, the agency may not categorically prohibit mining if conducted on valid claims, stating that "[n]othing in section [...] 551 of this title shall be construed as prohibiting [...] any person from entering upon such national forests for all proper and lawful purposes, including that of prospecting, locating, and developing the mineral resources thereof."<sup>55</sup>

In 1974 and 1981, the agency adopted regulations under this authority, now known as the "36 C.F.R. Part 228 regulations." The Supreme Court noted the connection between the Organic Act and the 36 C.F.R. Part 228 regulations:

Through this delegation of authority, the Department of Agriculture's Forest Service has promulgated regulations so that "use of the surface of National Forest System lands" [...] "shall be conducted so as to minimize adverse environmental impacts on National Forest System surface resources."<sup>56</sup>

In *United States v. Richardson*, the Ninth Circuit Court of Appeals discussed the relationship between the Organic Act and mining rights, affirming a District of Oregon decision enjoining a

<sup>&</sup>lt;sup>52</sup> 16 U.S.C. §551.

<sup>&</sup>lt;sup>53</sup> Clouser v. Espy, 42 F.3d 1522, 1529, n.7 (9th Cir. 1994), cert. denied, 515 U.S. 1141, and reh'g. denied, 515 U.S. 1178 (1995) (internal citations omitted).

<sup>&</sup>lt;sup>54</sup> 16 U.S.C. §551.

<sup>&</sup>lt;sup>55</sup> 16 U.S.C. §478.

<sup>&</sup>lt;sup>56</sup> California Coastal Commission v. Granite Rock Co., 480 U.S. 572, 582 (1987) (quoting 36 C.F.R. § 228.1, 228.3(d)).

particular prospecting method.<sup>57</sup> Both courts upheld the Forest Service's prohibition against "destructive" methods, noting "the Forest Service may require the locator of an unpatented mining claim on national forest lands to use nondestructive methods of prospecting."<sup>58</sup> Since the dispute arose just before the adoption of the current Forest Service mining regulations, the court based its decision on the "interrelationship of federal statutes concerning the national forests and mining on public lands [namely] 30 U.S.C. s 26, 30 U.S.C. s 612, 16 U.S.C. s 551, and 16 U.S.C. s 478."<sup>59</sup>

In *Clouser v. Espy*, the Ninth Circuit affirmed the Forest Service's authority to impose significant restrictions on a mining operation, in that case limiting the claimant to access via pack horse only.<sup>60</sup> The court rejected the claimant's argument that such a restriction violated federal mining laws:

In light of the broad language of [Organic Administration Act] § 551's grant of authority, [Organic Administration Act] § 478's clarification that activities of miners on national forest lands are subject to regulation under the statute, and this substantial body of case law, there can be no doubt that the Department of Agriculture possesses statutory authority to regulate activities related to mining—even in non-wilderness areas—in order to preserve the national forests.<sup>61</sup>

Recent decisions have reinforced the Forest Service's broad authority over mining. "[T]he Secretary of Agriculture has long had the authority to restrict motorized access to specified areas of national forests, including to mining claims."<sup>62</sup>

Indeed, in *Clouser v. Espy*, the court affirmed the ability of the agency to restrict mining even to the point that the project would no longer be economically viable. **"Virtually all forms of Forest Service regulation of mining claims—for instance, limiting the permissible methods of mining and prospecting in order to reduce incidental environmental damage—will result in increased operating costs, and thereby will affect claim validity."<sup>63</sup> In fact, under the 1872 Mining Law itself, the expense associated with compliance with environmental regulations may so increase the cost of mining as to render a claim not valuable.<sup>64</sup>** 

Thus, any argument that the agency is precluded from meeting its statutory and regulatory obligations because they allegedly make a mine operation "too expensive" is not supported by federal law and applicable court decisions and thus can be rejected. The above referenced legal authority also invalidates Midas Gold's self-selected 20% rate-of-return as a constraint on the Forest's regulation of this Project.

<sup>&</sup>lt;sup>57</sup> United States v. Richardson, 599 F.2d 290 (9th Cir. 1979) (limiting mining proponent to non-destructive exploration methods).

<sup>&</sup>lt;sup>58</sup> *Id*. at 291.

<sup>&</sup>lt;sup>59</sup> *Id.* at 291-92.

<sup>&</sup>lt;sup>60</sup> Clouser v. Espy, 42 F.3d 1522 (9th Cir. 1994).

<sup>&</sup>lt;sup>61</sup> *Id.* at 1530 (*citing* 16 U.S.C. § 551).

<sup>&</sup>lt;sup>62</sup> *Public Lands for the People v. U.S. Dept. of Agriculture*, 697 F.3d 1192, 1198 (9<sup>th</sup> Cir. 2012) (upholding denial of access routes to mining claims in travel management plan) (*citing Clouser v. Espy*, 42 F.3d at 1530).

<sup>&</sup>lt;sup>63</sup> Clouser v. Espy, 42 F.3d at 1530 (emphasis added).

<sup>&</sup>lt;sup>64</sup> See United States v. Kosanke Sand Corp., 12 IBLA 282, 299 (August 3, 1973). See also Great Basin Mine Watch et al., 146 IBLA 248, 256 (November 9, 1998).

The Forest is also under the obligation to ensure that all federal and state environmental laws are met before authorizing any disturbance on federal land. In addition to the agencies' regulations, under the Clean Water Act ("CWA"), the agencies cannot approve any activity that may result in a violation of a water quality standard or requirement.

Under the Clean Water Act, all federal agencies must comply with state water quality standards, including a state's antidegradation policy. 33 U.S.C. § 1323(a). Judicial review of this requirement is available under the Administrative Procedure Act.<sup>65</sup>

Further, under the Organic Act and the 36 C.F.R. Part 228 regulations, the agency cannot approve a mining plan of operations unless it can be demonstrated that all feasible measures have been taken to "minimize adverse impact" on National Forest resources, including all measures to protect wildlife and habitat.<sup>66</sup> The "operator shall take all practicable measures to maintain and protect fisheries and wildlife habitat."<sup>67</sup>

This language has been relied upon by the federal courts in overturning a Forest Service-approved mining operation that did not adequately protect wildlife. "The operator also has a separate regulatory obligation to 'take all practicable measures to maintain and protect fisheries and wildlife habitat which may be affected by the operations.' 36 C.F.R. § 228.8(e)."<sup>68</sup> "Under the Organic Act the Forest Service must minimize adverse environmental impacts where feasible and must require [the project applicant] to take all practicable measures to maintain and protect fisheries and wildlife habitat."<sup>69</sup>

In summary, the Forest Service's Organic Act requires that the agency "*must*... ensure that its approval of a plan or project does not result in the 'destruction' and 'degradation' of the public forests."<sup>70</sup>

Based on the PRO, it does not appear that Midas Gold will indeed "minimize all adverse impacts." For example, although the PRO states that the Yellow Pine pit will be backfilled, Midas Gold does not propose to backfill the West End or Hangar Flats pits. Rather, these pits will be allowed to create pit lakes of uncertain water quality and hydrological impact. Further, while the Tailings

<sup>&</sup>lt;sup>65</sup> Idaho Sporting Congress v. Thomas, 137 F.3d 1146, 1153 (9th Cir. 1998) (*citing Oregon Natural Resources Council* v. U.S. Forest Service, 834 F.2d 842, 852 (9<sup>th</sup> Cir. 1987)). See also Marble Mountain Audubon Soc v. Rice, 914 F.2d 179, 182-83 (9th Cir. 1990); Oregon Natural Resources Council v. Lyng, 882 F.2d 1417, 1424-25 (9th Cir. 1989); Hells Canyon Pres. Council v. Haines, 2006 WL 2252554, at \*4-5 (D. Or. Aug. 4, 2006) (Forest Service mine approvals must comply with CWA standards).

<sup>&</sup>lt;sup>66</sup> 36 C.F.R. §228.8.

<sup>&</sup>lt;sup>67</sup> 36 C.F.R. §228.8(e).

<sup>&</sup>lt;sup>68</sup> *Rock Creek Alliance v. U.S. Forest Service*, 703 F.Supp.2d 1152, 1164 (D. Mont. 2010) (Forest Service Plan of Operations approval violated Organic Act and 228 regulations by failing to protect water quality and fisheries).

<sup>&</sup>lt;sup>69</sup> Id. at 1170. See also Save Our Cabinets v. U.S. Dept. of Agriculture, 2017 WL 2345667 (D. Mont. May 30,

<sup>2017) (</sup>Forest Service approval of mining project when predicted to violate state water quality standards violates the CWA, Organic Act, 228 regulations, and the Nation Forest Management Act).

<sup>&</sup>lt;sup>70</sup> *Clouser v. Madigan*, 1992 WL 694368, at \*4 (D. Or. Dec. 22, 1992), *aff d sub nom. Clouser v. Espy*, 42 F.3d 1522 (9th Cir. 1994). (*citing* 16 U.S.C. § 551 and 16 U.S.C. §1131).

Storage Facility is proposed to be lined and a zero-discharge facility, the company does not propose to do the same for the waste rock dumps. Lining and controlling the discharge from the waste rock dumps would clearly "minimize" the adverse impacts compared to an unlined facility.

Based on the PRO, it is also questionable whether Midas Gold plans to truly "minimize" all adverse impacts. Water quality and flow are of particular concern. According to the PRO:

Midas Gold will have the option of pumping or routing water to different locations including: (1) the ore processing facility for use in processing or other beneficial site uses, (2) rapid infiltration basins located in the downstream alluvial material or in the backfilled areas of the Yellow Pine pit to re-establish alluvial groundwater levels, if the water is of suitable quality, and/or (3) treated water to be discharged into the EFSFSR at National Pollutant Discharge Elimination System ("NPDES") discharge points in compliance with permits and discharge standards.<sup>71</sup>

Each of these facilities could result in a point source discharge which can only be allowed pursuant to a CWA NPDES permit. In practice, however, these scenarios would all result in the creation of perpetual pollution at the site—something that the Forest cannot authorize.

Under the 36 C.F.R. Part 228 regulations, the agency can only approve a mine that can be reclaimed. In detailing the reclamation requirements, the regulation states that the:

[O]perator shall, where practicable, reclaim the surface disturbed in operations by taking such measures as will prevent or control onsite and off-site damage to the environment and forest surface resources including:

- (1) Control of erosion and landslides;
- (2) Control of water runoff;

# (3) Isolation, removal or control of toxic materials;

(4) Reshaping and revegetation of disturbed areas, where reasonably practicable; and

# (5) Rehabilitation of fisheries and wildlife habitat.<sup>72</sup>

The Forest cannot authorize the creation of perpetual water pollution sources (even if covered by an NPDES permit) or pit lakes unless any discharge will comply with water quality standards in perpetuity.

As noted in the Forest Service's *Anatomy of a Mine* regulatory guidance report, reclamation is a critical and required component of a logical, complete, and reasonable mining plan:

<sup>&</sup>lt;sup>71</sup> PRO at ES-15.

<sup>&</sup>lt;sup>72</sup> 36 C.F.R. § 228.8(g) (emphasis added).

Satisfactory reclamation should emphasize three major objectives:

1. The productivity of the reclaimed land should at least equal that of the premine surface. This does not necessarily mean that the site must be restored to an approximation of its original condition, or that surface uses after mining will be the same as those existing prior to mining. For example, an area used for marginal grazing prior to mining may be changed to a useful and attractive recreational complex, or perhaps in another case to a housing area.

#### 2. Satisfactory reclamation should leave the mined area in a condition that will not contribute to environmental degradation either in the form of air- or water-borne materials, or from chemical pollution.

3. The reclaimed area should be esthetically acceptable and it should be safe for the uses intended.  $^{73}$ 

The Mining and Minerals Policy Act also mandates successful and final reclamation of mine operations approved by the Forest Service, requiring "the reclamation of mined land, so as to lessen any adverse impact of mineral extraction and processing upon the physical environment that may result from mining or mineral activities."<sup>74</sup> No such plan to "lessen any adverse impact" from the creation of these pollution sources has been proposed in the PRO.

Other Project activities also do not ensure that all adverse impacts will be minimized. For example, "[t]he spent heap leach ore will be removed and reused for construction purposes."<sup>75</sup> Yet, this spent and leached ore may contain elevated levels of metals and other pollutants not suitable to be generally used at the site (outside of placement in a lined zero-discharge facility).

# **3.** The Forest Must Include a Mitigation Plan and Assess Mitigation Effectiveness in the EIS

The Forest must fully review all potential mitigation measures, as well as the effectiveness of all mitigation measures, in each alternative in the EIS. Under NEPA, the Forest must have an adequate mitigation plan to minimize or eliminate all potential project impacts. NEPA requires the agency to: (1) "[i]nclude appropriate mitigation measures not already included in the proposed action or alternatives"<sup>76</sup>; and (2) "include discussions of: … [m]eans to mitigate adverse environmental impacts (if not already covered under § 1502.14(f))."<sup>77</sup>

NEPA regulations define "mitigation" as a way to avoid, minimize, rectify, or compensate for the impact of a potentially harmful action.<sup>78</sup> "[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly

 <sup>&</sup>lt;sup>73</sup> Anatomy of a Mine, From Prospect to Production, USDA Forest Service, General Technical Report INT-GTR-35, Revised February 1995, at 68-69 (emphasis added) (available at: <u>https://www.fs.fed.us/rm/pubs\_int/int\_gtr035.pdf</u>).
 <sup>74</sup> 30 U.S.C. § 21a (emphasis added).

<sup>&</sup>lt;sup>75</sup> PRO at ES-16.

<sup>&</sup>lt;sup>76</sup> 40 C.F.R. §1502.14(f).

<sup>&</sup>lt;sup>77</sup> 40 C.F.R. §1502.16(h).

<sup>&</sup>lt;sup>78</sup> 40 C.F.R. §1508.20(a)-(e).

evaluate the severity of the adverse effects."<sup>79</sup> NEPA requires that the agency discuss mitigation measures, with "sufficient detail to ensure that environmental consequences have been fairly evaluated …"<sup>80</sup> "An essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective. […] A mitigation discussion without at least *some* evaluation of effectiveness is useless in making that determination."<sup>81</sup> An EIS violates NEPA if it "fails to address the effectiveness of the mitigation measures."<sup>82</sup>

In the PRO, Midas Gold relies on various assorted mitigation measures to purportedly account for the Forest's responsibilities under the Organic Administration Act of 1897 ("Organic Act")<sup>83</sup> and 36 C.F.R. Part 228 regulations, which require that the Forest "minimize adverse impacts" and comply with all environmental laws (such as CWA and Clean Air Act standards).<sup>84</sup> Yet, the PRO provides little detail of each mitigation measure and does not provide any real analysis of how effective each measure will be. Thus, it is impossible to verify the significant environmental benefits claimed by the company.

In order to comply with NEPA, the Forest must identify and describe appropriate mitigation measures associated with the Project, specifying measures committed by the mine operator and/or required by the Forest or other federal, state, or local agency. The Forest must address how each measure would specifically mitigate the targeted impact, provide substantial detail on the means of implementing each mitigation measure, identify who would be responsible for implementing it (including long-term), indicate whether it is enforceable, and describe its anticipated effectiveness. For some impacts, there may be several appropriate and effective measures. Conversely, some measures may turn out to be less effective than anticipated; therefore, implementation and effectiveness monitoring should be conducted and contingency measures should be considered and discussed. For each impact area, the EIS should describe the specific mitigation implementation thresholds, any mitigation implementation and effectiveness monitoring deemed necessary, and the criteria by which success would be determined once mitigation is fully implemented. If impacts are not mitigated by existing required measures, the Forest should require additional measures within the limits of its regulatory authority. Furthermore, for some mitigation measures, it may be necessary to describe the contingency planning and adaptive management options in place in the event that mitigation is found to be less than fully successful.

<sup>&</sup>lt;sup>79</sup> Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 (1989).

<sup>&</sup>lt;sup>80</sup> Id.

<sup>&</sup>lt;sup>81</sup> South Fork Band Council of West Shoshone of Nevada v. U.S. Dep't. of Interior, 588 F.3d 718, 727 (9th Cir. 2009) (citations omitted) (EIS for mining project failed to conduct adequate review of mitigation and mitigation effectiveness).

<sup>&</sup>lt;sup>82</sup> Gifford Pinchot Task Force v. Perez, 2014 WL 3019165, at \*39 (D. Or. July 3, 2014).

<sup>&</sup>lt;sup>83</sup> 16 U.S.C. §551.

<sup>&</sup>lt;sup>84</sup> PRO at 5-1 to 5-6.

# 4. The Forest Must Comply with the Forest Plans and NFMA When Approving Any Project

Forest authorization of mining must comply with the Payette National Forest Land and Resource Management Plan and the Boise National Forest Land and Resource Management Plan<sup>85</sup> and National Forest Management Act ("NFMA") requirements.<sup>86</sup> As held by the federal court in *Hells Canyon*, the fact that operations are proposed on an unpatented mining claim does not override the Forest Service's duty to comply with the Forest Plans' standards under the NFMA.<sup>87</sup> The duty to comply, and be consistent, with the Forest Plans includes ensuring consistency with all standards, guidelines, desired conditions, and objectives contained in the Forest Plans.<sup>88</sup>

The PRO is inconsistent with the binding Forest Plan standards. For example, Payette National Forest Land and Resource Management Plan ("Payette Forest Plan") Standard and Guideline MIST08, requires the agency and Midas Gold to:

Locate new structures, support facilities, and roads outside [Riparian Conservation Areas ("RCAs")]. Where no alternative to siting facilities in RCAs exists, locate and construct the facilities in ways that avoid or minimize degrading effects to RCAs and streams, and adverse effects to TEPC species. Where no alternative to road construction in RCAs exists, keep roads to the minimum necessary for the approved mineral activity. Close, obliterate, and revegetate such roads if no longer required for mineral or other management activities.<sup>89</sup>

Unless the Forest determines, with full NEPA compliance, that there is absolutely "no alternative" to the location of all these facilities in the RCA, it must prohibit their placement in the RCA.<sup>90</sup>

Similarly, the Project likely violates MIST09, which "[p]rohibit[s] solid and sanitary waste facilities in RCAs" unless there is "no alternative to locating mine waste (waste rock, spent ore, tailings) facilities in RCAs."<sup>91</sup> If no alternative exists, then MIST09 requires a series of strict

<sup>&</sup>lt;sup>85</sup> Payette National Forest Land and Resource Management Plan (July 2003); Boise National Forest Land and Resource Management Plan (2010).

<sup>&</sup>lt;sup>86</sup> *Hells Canyon Preservation Council v. Haines*, 2006 WL 2252554, \*7-10 (D. Or. Aug. 4, 2006) (finding Record of Decision for mining operations violates Forest Plan/Inland Native Fish Strategy and other standards).

<sup>&</sup>lt;sup>87</sup> See also Save Our Cabinets v. U.S. Dept. of Agriculture, 2017 WL 2345667, \*11-13 (D. Mont. May 30, 2017) (Forest Service approval of mining project when predicted to violate state water quality standards violates the water quality desired conditions and objectives in the Forest Plan and thus the NFMA).

<sup>&</sup>lt;sup>88</sup> Id.

<sup>&</sup>lt;sup>89</sup> Payette National Forest Land and Resource Management Plan (July 2003) at III-49. The PRO locates many of the new structures, facilities, and roads within RCAs ("Riparian Conservation Areas"). *See, e.g.,* PRO Figure ES-4 General Site Plan Layout at ES-18.

<sup>&</sup>lt;sup>90</sup> See Hells Canyon Preservation Council v. Haines, 2006 WL 2252554, at \*7-10. See also Payette National Forest Land and Resource Management Plan Standard FRGU06 at III-60 ("New roads and landings should be constructed out of RCAs wherever possible."). See also Gifford Pinchot Task Force v. Perez, 2014 WL 3019165, at \*20-22 (D. Or. July 3, 2014) (mine exploration drilling waste sump is a "support facility" requiring compliance with similar Forest Plan riparian protection standards).

<sup>&</sup>lt;sup>91</sup> Payette National Forest Land and Resource Management Plan at III-50.

analysis and mitigation measures that must be met.<sup>92</sup> The PRO does not satisfy the requirement that "no alternative exists" to locating these facilities in the many RCAs at the site.

In its brief mention of the Payette Forest Plan MIST standards, the PRO uses the wrong standard for protecting RCAs. "Midas Gold will also, *to the extent practicable*, avoid locating infrastructure within stream and wetland [RCAs] delineated by the Forest Service using the criteria listed in the Payette Forest Plan."<sup>93</sup> The Payette Forest Plan standards do not allow these structures/facilities/roads to be located in RCAs simply when Midas Gold believes it is not "practicable" to locate them outside of RCAs.

At a minimum, the standard for Forest regulation of mining is whether it is "feasible" to relocate or otherwise mitigate project activities/facilities to protect against adverse impacts.<sup>94</sup> The Forest must thus reject Midas Gold's artificial rate-of-return threshold of 20% for environmental protection determinations.<sup>95</sup>

In addition, the Forest must consider a number of environmental mitigation alternatives, such as lining the waste rock dump(s) and making them zero-discharge facilities, which are not considered in the PRO.

# 5. The Forest Must Conduct a Full Analysis of All Direct, Indirect, and Cumulative Impacts in the EIS

According to the Council on Environmental Quality ("CEQ") regulations implementing NEPA, a cumulative impact is,

[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.<sup>96</sup>

Cumulative impacts analyses are important to the EIS as they describe the threats to resources as a whole. Understanding cumulative impacts can illuminate opportunities for minimizing those threats.

The Forest must fully review all direct, indirect, and cumulative environmental impacts of the Project in the EIS.<sup>97</sup> Direct effects are caused by the action and occur at the same time and place as the proposed project.<sup>98</sup> Indirect effects are caused by the action and are later in time or farther

<sup>&</sup>lt;sup>92</sup> Id.

<sup>&</sup>lt;sup>93</sup> PRO at G-20 (emphasis added).

<sup>&</sup>lt;sup>94</sup> 36 C.F.R. §228.8.

<sup>&</sup>lt;sup>95</sup> PRO at G-16.

<sup>&</sup>lt;sup>96</sup> 40 C.F.R. §1508.7

<sup>&</sup>lt;sup>97</sup> 40 C.F.R. §§1502.16, 1508.8, 1508.25(c).

<sup>&</sup>lt;sup>98</sup> 40 C.F.R. §1508.8(a).

removed in distance, but are still reasonably foreseeable.<sup>99</sup> Relevant impacts include "effects on natural resources and on the components, structures, and functioning of affected ecosystems," as well as "aesthetic, historic, cultural, economic, social or health [effects]."<sup>100</sup>

In a cumulative impact analysis, an agency must take a "hard look" at all actions.

An [...] analysis of cumulative impacts "must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment." [...] "Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide."<sup>101</sup>

Thus, in addition to the impacts from this Project, the Forest must provide a detailed and quantified analysis of all impacts from other activities in the area, such as logging, grazing, recreation, mineral/energy exploration/development (including the mineral exploration noted in the PRO at ES-22), transportation, etc. in the EIS.

The Ninth Circuit has repeatedly faulted the federal land agencies for failing to fully review the cumulative impacts of mining projects. In a recent case which vacated the BLM's approval of a mine, the court stated that, "[i]n a cumulative impact analysis, an agency must take a 'hard look' at *all* actions' that may combine with the action under consideration to affect the environment."<sup>102</sup> The court found that the BLM violated NEPA because it "did not 'identify and discuss the impacts that will be caused by each successive project, including how the combination of those various impacts is expected to affect the environment."<sup>103</sup> In *Great Basin Mine Watch*, the Ninth Circuit required "mine-specific [...] cumulative data," a "quantified assessment of their [other projects] combined environmental impacts," and "objective quantification of the impacts" from other existing and proposed mining operations in the region.<sup>104</sup> The agency cannot "merely list other [projects] in the area without detailing impacts from each one."<sup>105</sup>

In addition to the fundamental cumulative impacts review requirements noted above, NEPA regulations require that the agency obtain the missing information. "If there is 'essential' information at the plan- or site-specific development and production stage, [the agency] will be required to perform the analysis under § 1502.22(b)."<sup>106</sup> Here, the adverse impacts from the Project proposed by the PRO (when added to other past, present, or reasonably foreseeable future

<sup>&</sup>lt;sup>99</sup> 40 C.F.R. §1508.8(b).

<sup>&</sup>lt;sup>100</sup> Id.

<sup>&</sup>lt;sup>101</sup> *Te-Moak Tribe of Western Shoshone of Nevada v. U.S. Dept. of Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (internal citations omitted) (rejecting EA for mineral exploration that had failed to include detailed analysis of impacts from nearby proposed mining operations). *See also Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 968-74 (9th Cir. 2006).

<sup>&</sup>lt;sup>102</sup> Great Basin Resource Watch v. Bureau of Land Mgmt., 844 F.3d 1095, 1104 (9th Cir. 2016) (emphasis in original) (quoting Te-Moak Tribe of Western Shoshone of Nevada v. U.S. Dept. of Interior, 608 F.3d at 603).

<sup>&</sup>lt;sup>103</sup> Id. at 1105 (quoting Great Basin Mine Watch v. Hankins, 456 F.3d at 973-74).

<sup>&</sup>lt;sup>104</sup> Great Basin Mine Watch v. Hankins, 456 F.3d at 972-74.

<sup>&</sup>lt;sup>105</sup> Id. at 972. See also Oregon Nat. Res. Council Fund v. Goodman, 505 F.3d 884, 893 (9th Cir. 2007).

<sup>&</sup>lt;sup>106</sup> Native Village of Point Hope v. Jewell, 740 F.3d 489, 499 (9th Cir. 2014).

actions) are clearly essential to the Forest's determination that the Project complies with all legal requirements and minimizes all adverse environmental impacts (which the Forest has a duty to ensure).

For the Project proposed by the PRO, this detailed quantification of all direct, indirect, and cumulative impacts necessarily includes impacts to air and water quality and quantity (surface and ground waters), wildlife/aquatic life, recreation, cultural resources, the Tribe's treaty rights, and transportation. The Tribe and the public should be allowed to review and comment upon all technical analyses and assumptions made in quantifying and analyzing these impacts. For example, because "[d]evelopment of the Yellow Pine and Hangar Flats pits will require dewatering in the alluvium of the EFSFSR and Meadow Creek valleys ahead of mining in order to limit water infiltration to the pits ...,"<sup>107</sup> the assumptions in support of the detailed modeling of the groundwater drawdown should be subject to public review.

Regarding the required review of all impacts to the Tribe's treaty rights, this includes not only the direct, indirect, and cumulative impacts of what is anticipated, but also a detailed review of the impacts under scenarios in which unanticipated, but possible, events/impacts may occur. For example, NEPA requires that the possible/potential impacts resulting from spills, breaches, leakages, etc. from all facilities/activities at the site must be fully reviewed in the EIS.<sup>108</sup>

As noted above, the need for detailed quantification is not limited to just the Project site but includes all potentially affected resources. For example, the impacts from transportation and off-site processing of the minerals/ore must be fully quantified and reviewed.<sup>109</sup> A full analysis of all other projects/activities using the roads proposed to be used by the PRO is also required.

Midas Gold only proposes to "redevelop portions of the Stibnite Mining District."<sup>110</sup> The EIS must disclose all areas that will not be redeveloped. It must also provide an environmental analysis of how these areas are impacting the environment currently, will impact the environment in perpetuity, and the future cost to the American taxpayer to redevelop or restore them. The EIS should identify the property owner of all areas of the historic mine district that will not be redeveloped. If Midas Gold owns properties that will not be redeveloped, the EIS must analyze whether these undeveloped lands are contributing to cumulative water quality or other environmental impacts and whether there are existing legal mechanisms to eliminate these impacts.

The EIS must also include a complete mapping of underground mine tunnels and their current impact on the environment. The PRO discloses that historical mining activities include "underground" mining.<sup>111</sup> The EIS should also analyze whether Midas Gold's proposed activities

<sup>&</sup>lt;sup>107</sup> PRO at 8-26.

<sup>&</sup>lt;sup>108</sup> See Standing Rock Sioux Tribe v. U.S. Army Corps of Engineers, 2017 WL 2573994, \*16-18 (D.D.C. June 14, 2017) (agency violated NEPA by failing to fully review impacts to Treaty-protected resources from pipeline spill in reviewing/approving pipeline that would cross tribal ceded treaty lands).

<sup>&</sup>lt;sup>109</sup> See South Fork Band Council of West Shoshone of Nevada v. U.S. Dept. of Interior, 588 F.3d 718, 725 (9<sup>th</sup> Cir. 2009) ("The air quality impacts associated with transport and off-site processing of the five million tons of refractory ore are prime examples of indirect effects that NEPA requires be considered.").

<sup>&</sup>lt;sup>110</sup> PRO at ES-1.

<sup>&</sup>lt;sup>111</sup> PRO at ES-2.

will cause or contribute to any adverse environmental impacts in the underground mining system, including water pollution discharges, air pollution releases, subsidence, or other impacts.

The EIS may not rely on the vague description in the EIS of ore processing at the Project site. The PRO states that Midas Gold "proposes to conduct … milling activities at its Stibnite Gold Project site …"<sup>112</sup> The PRO also states that "ore processing" will occur at the site<sup>113</sup> and that "[t]he specific method of ore processing depends on the mineralogy and the economics of the deposit."<sup>114</sup> The EIS must thoroughly disclose the nature of these milling and ore processing activities and analyze all impacts, including construction activities, noise, air pollution, water pollution, and compliance with Forest Service, state, federal, local, and/or tribal regulatory requirements.

Under *South Fork Band Council*, the Draft EIS must also fully review the impacts from the transportation and processing of ore/concentrate.<sup>115</sup> The PRO states that "[a]ntimony concentrate [will be] sent offsite for processing."<sup>116</sup> The fact that Midas Gold may seek or obtain a state-issued permit for Project emissions/discharges, whether on-site or offsite, does not mean that the Forest can avoid a detailed review of these, or any, impacts under NEPA.<sup>117</sup>

The EIS must verify the PRO's claim that "human impacts [in the Project area] have been compounded by extensive forest fires that have burned approximately 76% of the Project mineral holdings area."<sup>118</sup> To do this, the EIS must analyze the baseline condition of the Forest in the Project area prior to the forest fires referenced in the PRO as well as the condition of the Forest after the fires, whether there has been any change to the condition of the Forest since the fires, and the potential impacts of future fires on the Forest and the Project area.

The Forest must also identify and analyze in the EIS the impact to the watersheds that Midas Gold plans to fill with mine tailings. The PRO states that a "composite-lined tailings storage facility (TSF)" will be developed at the site.<sup>119</sup> The proposed TSF appears to be located in the headwaters of at least three unnamed streams.<sup>120</sup> These watersheds must be identified and the impact of filling these watersheds with tailings must be fully analyzed in the EIS, as well as potential for contamination from TSF. The Forest should mandate that any TSF be constructed using a double liner system with leachate detection and collection to prevent discharge to the environment. The EIS must fully analyze the potential environmental impacts associated with the TSF, including the local and downstream watersheds that would be adversely affected by a release from the TSF at any point in the future. The PRO also states that the TSF will include "[p]ost-closure reclamation to create wetlands and fish habitat."<sup>121</sup> The EIS must fully evaluate the post-closure of the TSF to ensure the long-term ability to support healthy fish habitat.

<sup>116</sup> PRO at ES-3, Table ES-1.

<sup>&</sup>lt;sup>112</sup> PRO at ES-2.

<sup>&</sup>lt;sup>113</sup> PRO at ES-2.

<sup>&</sup>lt;sup>114</sup> PRO at ES-17.

<sup>&</sup>lt;sup>115</sup> South Fork Band Council of Western Shoshone of Nevada v. U.S. Dept of Interior, 588 F.3d at 725.

<sup>&</sup>lt;sup>117</sup> See Great Basin Resource Watch v. BLM, 844 F.3d at 1103-04 (quoting South Fork Band Council, 588 F.3d at 726).

<sup>&</sup>lt;sup>118</sup> PRO at ES-2.

<sup>&</sup>lt;sup>119</sup> PRO at ES-2.

<sup>&</sup>lt;sup>120</sup> See PRO at ES-18, Figure ES-4.

<sup>&</sup>lt;sup>121</sup> PRO at ES-4, Table ES-1.

The Forest must fully analyze the environmental impact of on-site infrastructure to support the Project in the EIS. The PRO acknowledges the need to construct extensive on-site infrastructure to support the Project<sup>122</sup> and states, "[o]nsite contractor/employee housing" will be constructed.<sup>123</sup> The Forest must analyze the impacts from this construction, the facilities' and use of utilities (water, electric, sewage), the noise they will emit, their impact on wildlife and recreation, and the ultimate fate of the buildings and housing units after the mine is closed.

# 6. The Forest Must Fully Disclose Current and Future Environmental Liabilities and Impacts in the EIS

The EIS should detail the environmental liabilities from which the site currently suffers and fully analyze to what degree Midas Gold will restore the site.

The PRO acknowledges that the current site suffers from a number of environmental problems that have resulted in "widespread impacts on the natural environment including: deforestation, accelerated erosion; increased sedimentation; elevated metals loading in surface and ground waters; diversion and degradation of natural waterways (including the East Fork of the South Fork of the Salmon River [EFSFSR]); blockages to anadromous fish passage; impaired water quality; and compromised fish habitat, waterways and wetlands."<sup>124</sup> The PRO provides little detail, however, as to the exact nature of these problems. For example, for impaired water quality, what are the specific sources, pollutant loadings, etc.?

The Forest needs to take a hard look at the basic premise for the PRO—that Midas Gold will restore the site as part of its new mineral operations, "thus avoiding the substantial costs that would otherwise be incurred by taxpayers."<sup>125</sup> In doing so, the Forest should keep in mind that Midas Gold, not the American taxpayer, is currently responsible for the environmental problems at the Project site, and that it is the company's responsibility to spend the resources to fix these problems. For example, under the CWA the owner/operator of a point source discharge of pollution must obtain an NPDES permit mandating that the discharge comply with water quality standards.<sup>126</sup> As an owner of property interests containing point source discharges (mine drainage tunnels, waste rock dumps, ponds, and pits) Midas Gold is already legally responsible for water pollution point sources at the site.

The Forest must also counter Midas Gold's claim that if it is prevented from proceeding with its plans, "government agencies would need to relocate millions of tons of development rock and spent ore and construct standalone repositories for storage of legacy tailings, contaminated soils, development rock, and spent heap leach ore."<sup>127</sup> It is Midas Gold, not "government agencies," that is currently liable and responsible to clean up the site.

<sup>&</sup>lt;sup>122</sup> PRO at ES-16.

<sup>&</sup>lt;sup>123</sup> PRO at ES-4, Table ES-1, and ES-14-15.

<sup>&</sup>lt;sup>124</sup> PRO at ES-2.

<sup>&</sup>lt;sup>125</sup> Id.

<sup>&</sup>lt;sup>126</sup> 33 U.S.C. § 1311.

<sup>&</sup>lt;sup>127</sup> PRO at G-9.

Related to this, the EIS must fully review the true no-action alternative. The true no-action alternative is not that the site will remain polluted/degraded, since Midas Gold is under an obligation to remediate all of the pollution/impacts under its broad, current liability. The agency cannot skew the no-action alternative (i.e., rejection/denial of the PRO) to argue that approval of the PRO is needed to clean up the site, when cleanup is already mandated by federal law. Thus, in the no-action alternative, the Forest needs to fully review Midas Gold's current liabilities and the extent of remediation that would be accomplished if Midas Gold met its current liabilities, independent of approval of the PRO.<sup>128</sup>

The Forest must analyze the current, specific environmental liabilities and permitting coverage at the site in the EIS. The PRO states that impacts from the historical mining activities "were carefully documented prior to [Midas Gold] taking ownership" of the properties.<sup>129</sup> All such documentation must be disclosed for public review and comment. The PRO also notes that Midas Gold will obtain CWA discharge permits but is unclear as to what, if any, of the current discharges are covered by CWA permits. It is impossible for the public to ascertain the current situation at the site without knowing, for instance, what the current CWA discharge points are or whether the site discharges are covered by the appropriate permits at all. If they are not, Midas Gold and the Forest must explain why these permits have not been obtained and the process for complying as fast as possible.

# 7. The Forest Must Disclose Bonding/Financial Assurance and Economic Information

Forest Service regulations and the Payette Forest Plan require full-cost reclamation/operation bonds.<sup>130</sup> The PRO states, however, that the public will not be allowed to review and comment upon its reclamation financial assurance (or bond) until after the NEPA process is completed: "Midas Gold will complete the reclamation cost estimate for the Project *after* the Forest Service has completed its NEPA review and identified a selected or preferred alternative for operations."<sup>131</sup>

The PRO merely says "[t]he closure and reclamation costs will be supported by a financial assurance sufficient to cover the costs of third parties completing this work if, for any reason, Midas Gold does not."<sup>132</sup> In the section on reclamation costs, the PRO merely lists the acreages of disturbances<sup>133</sup> with no mention of the costs of any of the activities.

That is unacceptable as it effectively shuts-out those most directly affected by the Project operations and reclamation. As stated in the PRO, one of "Midas Gold's Core Values" is "Transparency - We will fulfill our commitments in an open and transparent manner. We aim to

<sup>&</sup>lt;sup>128</sup> "Where a choice of 'no action' by the agency would result in predictable actions by others, this consequence of the 'no action' alternative should be included in the analysis." *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18,026-01 (Mar. 23, 1981).

<sup>&</sup>lt;sup>129</sup> PRO at ES-2.

<sup>&</sup>lt;sup>130</sup> See 36 C.F.R. Part 228; See Payette National Forest Land and Resource Management Plan.

<sup>&</sup>lt;sup>131</sup> PRO at 14-37 (emphasis added).

<sup>&</sup>lt;sup>132</sup> PRO at ES-8.

<sup>&</sup>lt;sup>133</sup> PRO at 14-38, Table 14-3.

be accurate, consistent and straightforward in all information delivered to our stakeholders."<sup>134</sup> Refusing to provide estimates of reclamation costs and necessary financial assurances for public review contradicts this claim.

Although reclamation cost estimates may evolve as various Project alternatives are considered, the company already has, and the Forest will, consider the economics of each aspect of the Project and its alternatives as they undergo NEPA review. It is certainly feasible for the company to provide those estimates both now and during the public review process. Indeed, as noted herein, Midas Gold has already rejected various site/facility alternatives based on a determination of whether the operation will meet a 20% rate-of-return.<sup>135</sup>

A key component to determining the environmental impacts of the PRO is the effectiveness of closure and reclamation activities, including long-term water quality maintenance. The amount and viability of financial assurance are critical factors in determining the effectiveness of reclamation and closure activities, and therefore, the significance of environmental impacts. The EIS should thus include details about the bond mechanism and a range of costs so that there is a context for understanding the cost of ensuring that the mine is appropriately reclaimed and closed. At a minimum, the Forest must fully engage and consult with the Tribe regarding the bond estimate and calculations during the government-to-government consultation process as required by the NHPA and Presidential Executive Orders.

The PRO repeatedly alludes to the fact that Midas Gold might not undertake closure and reclamation activities at the site. Instead, Midas Gold holds out the possibility that unnamed "third parties" would conduct closure and reclamation.<sup>136</sup> The EIS/Record of Decision ("ROD") must ensure that Midas Gold is legally responsible for conducting all closure and reclamation requirements and must prohibit Midas Gold from transferring these obligations to any "third party." The fact that the PRO repeatedly references the transfer of these obligations to unidentified "third parties" is extremely troubling. The failure of previous mining entities to perform closure and reclamation has resulted in the environmental problems that persist at the site today. The Forest must not make the same mistake with this Project.

Finally, the PRO states that the Project will only proceed "once Midas Gold raises the US\$1 billion capital required for the Stibnite Gold Project, and puts the necessary financial assurance for reclamation securely in place."<sup>137</sup> The Forest should thus postpone preparation of the Draft EIS until Midas Gold proves that the \$1 billion in capital has been secured and all bonding has been completed. Otherwise, the Forest and the public may be forced to devote substantial time and money to preparing a Draft EIS for a project that may never materialize.

<sup>&</sup>lt;sup>134</sup> PRO at ES-5.

<sup>&</sup>lt;sup>135</sup> PRO at G-16.

<sup>&</sup>lt;sup>136</sup> PRO at ES-3 and ES-8.

<sup>&</sup>lt;sup>137</sup> PRO at ES-8.

#### 8. The Forest Must Identify Minority and Low-Income Populations Potentially Affected by the Project

Executive Order 12898 requires federal agencies to identify minority and low-income populations potentially affected by a project. It also requires federal agencies to assess whether any project alternatives would cause a disproportionate adverse impact on the population(s), such as displacement, changes in existing resources or access, or community disruption.<sup>138</sup> Agencies must also explore potential mitigation measures for any adverse environmental justice effects.

In light of these requirements, the Forest must describe its steps to: (1) fully analyze the environmental effects of the proposed Project on minority communities and low-income populations; and (2) present opportunities for affected communities to provide input into the NEPA process.<sup>139</sup> The Forest should also specify whether it is meeting the requirements of the Forest's environmental justice strategy.

#### 9. The Forest Must Thoroughly Consider Mine Reclamation, Closure, and Post-Closure Conditions

Understanding reclamation, closure, and post-closure design is critical to understanding this Project's potentially significant environmental impacts. Therefore, the Forest's analysis in the EIS should describe in detail the reclamation, closure, and post-closure management of the proposed mine and consider the following:

- Analyze the order that the pits are mined and reclaimed. Reclamation of the Yellow Pine pit is of greatest concern to reestablishing the fisheries in the EFSFSR. The Forest should look at the environmental benefits of backfilling and reclaiming the Yellow Pine pit as soon as possible after it is mined. This would change the order of the pits mined to: (1) Yellow Pine pit; (2) West End (using clean waste rock to backfill the Yellow Pine); and (3) Hanger Flats pit.
- Provide a detailed account of measures needed to decommission mine operations and stabilize and revegetate pit slopes, waste rock facilities, heap leach pads, tailings impoundments, roads, and other areas.
- Identify the areas targeted for reclamation (including estimated acreage) and provide a description of the intended degree of treatment in each area.
- Describe the timing of reclamation relative to mining operations, procedures for concurrent reclamation activities, and the duration of reclamation treatments.
- Standards for determining, and means of assuring, reclamation success.

 <sup>&</sup>lt;sup>138</sup> Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59
 Fed. Reg. 7629 (Feb. 11, 1994).
 <sup>139</sup> Id

• Ensuring that all maintenance required for reclaimed areas will continue after operations cease or while operations are suspended.

The Forest should also describe in the EIS all closure and post-closure activities associated with the open pits, waste rock piles, tailings facility, groundwater management, surface water management, water treatment, and other facilities. This description should detail how drain-down fluids from the tailings storage facility would be captured, treated, and controlled over the closure and post-closure period. It should also include the commitments Midas Gold and government agencies have made regarding operation and maintenance of caps/covers, drain-down systems, water treatment, fencing and wildlife protection measures, diversion channels, underdrain systems, and wells, etc. And finally, the description should describe Project implementation, performance, and effectiveness monitoring, and the follow-up actions that will be taken should destabilization or contamination be detected at the Project site.

# a. Underground Workings Closure

The Forest should also describe in the EIS the reclamation and closure of all subsurface infrastructure, including underground drill stations, dewatering wells, vent raises, access drifts, stopes, load centers, pump stations, sumps, explosive storage areas, fuel storage areas, refuge stations, connector drifts, muck bays, laydown areas, and other associated material, and equipment storage areas. The Forest should also discuss in detail the amount and method of backfill, including how the use of waste rock, compressed waste rock, and/or cemented rock fill would impact mine hydrology and water quality post-closure. This discussion should include the measures taken to prevent surface access to underground workings.

# b. Tailings Storage Facilities

The waste rock and tailing storage facilities are proposed to be located in Upper Meadow Creek, Fiddle Creek, and West End Creek. Placing tailing storage facilities in the headwaters streams of the EFSFSR pose substantial risks to water quality and fisheries downstream should they leak or fail. There are numerous examples of earthen dam-tailings pond failures (2014 Mt. Polly, 2014 Duke Energy, 2015 BuenaVista del Cobre, 2015 Samarco-Vale). The EIS should evaluate alternate locations and alternate methods of storing tailings, such as dry stacking. Dam discharges into toe dams should be monitored continuously. The EIS should include cost comparisons between wet and dry disposal options including long-term reclamation and closure costs.

The Forest should also describe in the EIS the reclamation and closure of the tailings storage facilities, including capping/covers, drain-down facilities, chemistry and fate of drain-down fluids, and projected drain-down times. The EIS should assess the effectiveness of various cap/cover systems in reducing meteoric water flow through the tailings. The EIS should also discuss in detail how drain-down fluids from the tailings would be captured, treated, and controlled over the closure and post-closure period. This discussion should include a description of the capacity of water treatment, the likelihood that this capacity will be sufficient, and the contingency in the event of insufficient capacity. The EIS should examine the potential for long-term or perpetual drain-down of the tailings and how this water would be treated and discharged.

#### c. Reclamation Plan

Reclamation and closure of the backfilled open pit areas, tailings, and waste rock disposal areas typically involves placing growth media over rock material to provide store and release covers for the purpose of reducing infiltration of meteoric water. The EIS needs to identify and discuss availability and condition of topsoil and the impacts of using alternative growth mediums (e.g. compost from the operational facilities and consolidated overburden). The EIS should describe the availability, properties, and sources of cover material and/or growth media, discuss how it would be applied to disturbed areas, and identify any additional measures (e.g. soil amendments) that may be needed to ensure successful reclamation and revegetation of the Project site. Direct haul of suitable topsoil should be used when feasible. Stockpiled topsoil should be protected from erosion, disturbance, and noxious weed establishment. The Forest should explain whether a synthetic geomembrane will be required to prevent interstitial water infiltration into mine facilities. Cover design should be described in detail with supporting data to demonstrate anticipated effectiveness.

The Forest should identify the permeability standard that growth media or other cover material would be designed to achieve, provide the basis for infiltration rates and cover/growth media thickness estimates, and discuss their effectiveness in minimizing exposure of mined material to meteoric water that could mobilize contaminants.

#### d. Revegetation

The Forest should include in the EIS a comprehensive revegetation plan for uplands, wetlands, and riparian areas. The EIS should include a revegetation plan that identifies target plant materials, plant species, seedbed preparations, outplanting techniques, pest management, monitoring, maintenance, and standards to evaluate success. The revegetation plan should evaluate and consider scientifically-proven reclamation techniques that improve vegetation establishment and growth, such as stubble mulch and varied seeding rates. The Forest should ensure that mined areas and all other affected lands are reclaimed with a diverse, effective, and permanent vegetation cover of the same variety to the area of land to be affected and capable of self-regeneration and plant succession at least equal in extent of cover to the natural vegetation of the area.

The seed mixes identified in the PRO are not diverse and do not match the native flora of the Project area. Native plant materials should be used whenever possible and should match the local, native species list with special regard to genetic and sexual diversity (e.g. dioecious plants like willows) and gene flow. Non-native and cultivar plant species should only be used as a temporary cover in the revegetation process where desirable and necessary (e.g. to prevent soil erosion or stabilize overburden and topsoil piles) to achieve the approved post-mining conditions.

The Forest needs to base its selection of genetically appropriate plant materials on the Project area's characteristics and ecological settings and use the best available information and plant materials. Site condition (e.g. soil erosion and presence of noxious weeds) and revegetated lands (e.g. plant cover and diversity) should be quantitatively monitored annually for at least ten years following initial implementation. When and where standards are not being met, additional work should be carried out.

#### e. Reclamation and Closure Financial Assurance

The Forest should explain the reclamation and closure financial assurance requirements and provide estimated amounts for the proposed Project and alternatives in the EIS.

The viability of financial assurance can be a critical factor in whether a project is environmentally acceptable; therefore, this information should be disclosed in the EIS. The Forest should describe financial assurance requirements and other measures that Forest and state regulators have in place to ensure funds would be immediately available should the mine operator or its insurer be unable to fund the required reclamation or closure activities. The Forest should explain how existing, or a lack of existing, guidance and requirements for financial assurance from both the Forest and Idaho Department of Lands will be addressed to ensure adequate financial assurance, particularly for long-term in perpetuity water treatment and site operations and maintenance.

#### f. Long-Term Management and Financial Assurance

The Forest should specify in the EIS all necessary long-term monitoring and management of the mine, as well as the enforcement mechanisms by either the Forest or other regulators should the mine operator fail to properly follow the long-term post-closure plan. The Forest should define the time frame over which long-term management activities will occur and whether they might be necessary into perpetuity. The Forest should also include projected costs for any post-closure activities and discuss whether the Forest will impose on the mine operator a requirement to establish a trust fund or other funding mechanism to ensure post-closure care. If a long-term funding mechanism is deemed necessary by the Forest, the EIS should include a general description of the funding mechanism.

Any financial assurance must be kept current as conditions change at the mine. The terms of the fund are critical to determining whether sufficient funds will be available to implement the postclosure plan and reduce the possibility of long-term contamination problems. The discussion in the EIS should include the following information:

- Requirements for timing of payments into the trust fund.
- How to ensure the trust fund will be bankruptcy remote.
- Acceptable financial instruments.
- Tax status of the trust fund.
- Identity of the trust fund beneficiaries.
- Identity of the operator with responsibility/liability for financial assurance at this site.

If the potential impacts of the Project necessitate a long-term trust fund, this information is essential in the EIS because it could make the difference between a project sufficiently managed

over the long-term by the site operator or an unfunded/under-funded contaminated site that becomes a liability for the federal government. In the absence of an appropriate guarantee, the Forest should consider the Project unacceptable.

# 10. The Forest Must Thoroughly Evaluate the Proposed Mine's Geochemistry

Accurate characterization of the mine's geochemistry is critical for properly identifying the Project's potential impacts and addressing them through facility design and mitigation measures. The Forest should therefore discuss in the EIS the mine's geochemistry, including the mineralogy and lithology, metals leaching potential, and neutralization/acid generation potential and non-acidic chemical leaching potential of the pit wall rock, waste rock, old and new tailings, and historic/existing mine workings. The Forest should also describe the static and humidity cell tests that have been conducted on waste rock and tailings to characterize them and provide a summary of the test results. The Forest should additionally explain how the geochemical testing procedures were designed to comply with all applicable guidance and instructional memoranda.

In addition to characterization, the Forest should describe in the EIS how waste rock would be handled, disposed, and reclaimed at the mine. The Forest should describe any waste rock management plan together with criteria for waste rock handling and proposed mitigation measures to minimize or collect leachate. The Forest should also discuss facility designs and control measures that would be implemented to ensure against leaching and release of contaminants under both acidic and non-acidic conditions and against the degradation of surface water and groundwater quality. This discussion should be supported with both geochemical testing data and on-site current or historic monitoring data (recent monitoring results, pan evaporation rates, etc.).

# 11. The Forest Must Thoroughly Evaluate the Proposed Mine's Geology and Minerals

The Forest should provide a detailed description of the mineralogy of the deposit, including all the gangue (non-economic) and economic minerals in both the ore and waste rock. Particular attention should be given to the waste rock, which is proposed for disposal in areas without the ability to capture leachate. The Forest should present the distribution of various mineral assemblages to allow the reviewer the ability to access the possible impacts on leaching of these minerals on the environment.

The Forest should also present a thorough investigation of seismic activity including frequency, magnitude, and identification of faults with evidence of holocene movement. The Forest should also conduct an analysis of the effects of maximum credible earthquakes on the mine, including possible pit wall failures, a possible collapse of the tunnel-bypass around the Yellow Pine pit, and mass wasting on mine infrastructure and the associated environment.

In addition, the Forest should provide in the EIS a detailed assessment of methodologies to determine the stability of the proposed EFSFSR tunnel-bypass around the Yellow Pine pit. The Forest should also describe plans to thoroughly evaluate possible geologic-structural problems affecting the stability of the tunnel and present a mitigation plan should there be bypass-tunnel collapse due either natural or man-made (e.g., terrorist) failures.

# 12. The Forest Must Thoroughly Evaluate the Proposed Mine's Tailings Storage Stability

In light of recent catastrophic events at the Mount Polley Mine in British Columbia in 2014, and at Samarco in Brazil in 2015, the Forest should consider in the EIS the public safety and environmental impacts of a catastrophic failure at all of the Project's tailings storage facilities, as well as measures to prevent and respond to such failures. The Forest should also include discussion of the following in the EIS and consider them as potential considerations for approval of the PRO:

- Use of a Failure Mode Effects Analysis to identify all potential failure modes and effects as well as appropriate design and prevention measures for all alternatives. Include consideration of overtopping, static liquefaction, earthquake-induced slope failures, piping, and cracking.
- Seepage modeling and fluid controls to inform and support selection of appropriate design and fluid management requirements.
- Alternative methods of tailings disposal that can improve stability as well as reduce risks of unintended spills and water management requirements. (Consider methods such as dry stack and in-pit tailings storage.)
- A formal Tailings Operation Management and Surveillance ("TOMS") plan together with a formal Emergency Action Plan ("EAP") for the proposed tailings storage facilities. A TOMS plan serves to document the procedures to be undertaken to properly operate, maintain, and monitor a tailings storage facility, while an EAP serves to document the procedures to be undertaken in the event of an emergency. In the case of tailings storage facilities, an EAP can help to prevent the occurrence or exacerbation of a failure.
- Include information in the EIS on how to respond to an accidental spill event such as a pipeline rupture.
- Identify any changes to monitoring and inspection requirements for tailings facilities in all phases of the mine, including in post-closure. For phases with significant uncertainty, consider an adaptive management approach to design and operations with the goal of reducing failure risk.

# C. <u>Resource Concerns the Forest Must Consider in the EIS</u>

# 1. Water Resources

# a. Water Quality Conditions

Water quality is currently significantly impaired in the EFSFSR, where the proposed Project site is located. The state of Idaho's 2014 Integrated Report found that arsenic levels in the EFSFSR exceed Idaho's human health criterion for consumption of water and organisms and for

consumption of fish. This means that secondary contact recreation is also impaired for arsenic.<sup>140</sup> The 3<sup>rd</sup> order of the EFSFSR is also currently impaired for antimony, arsenic, and fish consumption (arsenic) and the secondary contact recreation is impaired (arsenic). The 5<sup>th</sup> order of the EFSFSR is impaired for sedimentation/siltation.<sup>141</sup>

In light of the current water quality conditions at the Project site, the Forest should coordinate with the Environmental Protection Agency ("EPA") and Idaho Department of Environmental Quality ("IDEQ") to ensure that adequate assessment and planning documents are in place before implementation of this Project.

# b. Additional Water Quality Assessments Needed

In 2011, IDEQ developed the SFSR Subbasin TMDL Five Year Review which states the assessment unit ("AU") that the Project is in (ID17060208SL023\_03) failed their Beneficial Use Reconnaissance Project ("BURP") survey.<sup>142</sup> Because it was not clear exactly what pollutant caused this site to fail the BURP survey, the impairment listed was "combined biota/habitat bioassessments."<sup>143</sup> Therefore, the Forest should coordinate a thorough water quality assessment with the IDEQ and Midas Gold at the Project site. A thorough water quality sampling effort would evaluate a broad suite of parameters and contaminants that are known to be common in the area and that are specific to extraction and beneficiation methods associated with prior mining operations in the area. Given the history of mercury mining at the Project site, the water quality sampling effort should evaluate compliance with mercury water quality standards in the water column, streambed sediment, as well as in fish tissue.<sup>144</sup> Ultimately, this thorough assessment should identify the current cause(s) of the water quality impairment at the Project site and how mining activities could exacerbate the existing impairment.

On a larger scale, the PRO notes that the forest fires in the area have created conditions that "contribute to sediment loading in local drainages."<sup>145</sup> A sediment TMDL was developed in 1991 by the IDEQ for the SFSR, which found that "excess sediment was delivered to the river through natural processes, activities related to roads, and timber harvest."<sup>146</sup> Sediment assessments conducted in 2003 by IDEQ found that the TMDL targets developed in 1991 had not yet been met.<sup>147</sup> In 2012, IDEQ revised the sediment targets used in the 1991 SFSR TMDL to more closely reflect natural conditions in the watershed. The proposed revised targets were based on the

<sup>&</sup>lt;sup>140</sup> *Idaho 2014 Integrated Report*, IDEQ, Appendix K (Category 5 (§303(d) list) - waters of the state for which a TMDL is needed), p. 28 (February 2017) (available at:

http://www.deq.idaho.gov/media/60179654/idaho-2014-integrated-report.pdf). (hereinafter referred to as "Idaho 2014 Integrated Report").

<sup>&</sup>lt;sup>141</sup> *Id.* at pp. 29-30.

<sup>&</sup>lt;sup>142</sup> South Fork Salmon River Subbasin TMDL Five Year Review, IDEQ, p.26 (March 2011) (available at: <u>http://www.deq.idaho.gov/media/455312-salmon\_river\_sf\_five\_year\_review\_0311.pdf</u>) (hereinafter referred to as

<sup>&</sup>quot;SFSR TMDL").

<sup>&</sup>lt;sup>143</sup> SFSR TMDL at p.27.

<sup>&</sup>lt;sup>144</sup> *Id.*; PRO at D-5

<sup>&</sup>lt;sup>145</sup> PRO at D-41.

<sup>&</sup>lt;sup>146</sup> SFSR TMDL at 2.

<sup>&</sup>lt;sup>147</sup> Addendum to the South Fork Salmon River Subbasin Assessment, IDEQ, p. 6 (July 2003) (available at: http://www.deq.idaho.gov/media/455306-salmon\_river\_sf\_addendum\_0703.pdf).

Watershed Condition Indicators used by the Forest for moderate quality intragravel and interstitial conditions, as required in the Southwest Idaho Land and Resource Management Plan revision effort and the National Marine Fisheries Service biological opinion Term and Condition 3.B.1.<sup>148</sup> When looking at the AUs that the Project site lies within, IDEQ concluded that "not enough [sediment] information exists to determine if the status of these AUs should change," and recommended that "more data [be] collected."<sup>149</sup>

The Forest should attempt to identify in the EIS the current sediment sources in this catchment both nonpoint sources (burn areas) and point sources (mine site sources)—since IDEQ's 1991 assessment likely no longer reflects actual conditions on the ground. Additional data collection efforts for sediment would also be extremely useful in determining whether the AUs' sediment targets are being met. If the AUs' targets are not being met, a plan to meet water quality standards should be developed.

The PRO claims that impaired watersheds will be restored as part of the Project but fails to identify the standards that will govern the restoration activities. Will the watersheds be restored to a premining condition? Will un-impacted streams in the vicinity be used as reference sites to compare water quality conditions and beneficial uses? Or will the watersheds only be restored to maintain current beneficial uses and water quality standards? The EIS must identify and justify the enforceable restoration standards that will be used to judge the success of the cleanup effort. Table ES-2 of the PRO should include a "water quality" column to identify the specific water quality goals of the restoration and mitigation projects.

#### c. Water Quantity and Supply

The PRO states that Midas Gold must obtain additional water rights to conduct operations at the site.<sup>150</sup> The EIS should evaluate the state of water rights in the basin, whether the basin is already over appropriated, the impact the water use by Midas Gold could have on downstream users, and the impact to surface and groundwater at the site from use of additional water rights. The EIS needs to identify potential water sources and the amount of water needed for the Project and describe the potential impacts associated with using these sources. The analysis should include hydrogeologic modeling that describes, and graphically depicts, the cone of depression likely to result from dewatering of the mine pit and from well field pumping (for a supplemental water supply). The Forest should characterize the geology and location of aquifers, their thickness, and their hydraulic conductivity ranges. The Forest should identify direct, indirect, and cumulative impacts to surface water flow, water supply wells, wetlands, springs and seeps, vegetation, wildlife, and other groundwater-dependent resources as a result of groundwater pumping associated with the proposed Project. And, the EIS should describe, and graphically depict, post-closure groundwater elevation recovery and include a discussion of evaporative losses from any surface water feature.

<sup>&</sup>lt;sup>148</sup>South Fork Salmon River Subbasin Temperature Total Maximum Daily Loads and Revised Sediment Targets: Addendum to the SF Salmon River Subbasin Assessment and TMDL, IDEQ, p. 5 (February 2012) (available at: https://www.deq.idaho.gov/media/809319-south-fork-salmon-river-temperature-tmdls-addendum-0912.pdf).

<sup>&</sup>lt;sup>149</sup> SFSR TMDL at 27.

#### d. Site Characterization

The EIS must provide a complete hydrologic characterization of the Project vicinity and the cumulative impact area, describing all existing water resources and baseline groundwater and surface water quality, quantity, flow regimes, and groundwater/surface water adjudication. Information on groundwater properties and groundwater/surface water connections (e.g., springs, seeps, depth to groundwater under different seasonal conditions, geology and locations of aquifers and their hydraulic conductivity ranges, groundwater discharge locations in streams, and interception of the water table by existing or proposed mine pits, etc.) are needed to identify and assess potential impacts to water resources and risks to receptors of contaminants. This baseline information is critical to understanding the Project's potential environmental impacts and should be described in the EIS rather than included by reference. The Forest should also include a complete description of the current drainage patterns in the existing mine facilities, and across the Project area, and describe how drainage patterns would change (including post-closure drainage patterns) under each alternative. In addition, the EIS needs to include hydrologic and topographic maps of the Project area and cumulative impact area and also identify any components of the proposed Project that would fall within 25-, 100-, and 500-year floodplains. The Forest also needs to discuss the potential for runoff to transport sediment or contaminants from disturbed areas at the mine to any surface waters, as well as any potential receptors outside the mine boundaries.

#### e. Potential Impacts on Water Resources

The PRO states that Midas Gold will construct a water supply system to provide potable water to the Project.<sup>151</sup> The EIS needs to fully examine the impacts of construction and operation of such a system. For example, the EFSFSR is not currently meeting its assessed beneficial uses of "Domestic Water Supply" and "Secondary Contact Recreation" due to arsenic contamination.<sup>152</sup> If the water supply system relies on the EFSFSR as a source, the water must be treated to comply with drinking water standards. Moreover, reliance on a local source for potable water, whether it be surface or groundwater, could reduce flow in the local watersheds. Wetlands in the upper portion of the site have already been adversely impacted by a lowering of the water table in the upper valley resulting from the dam on the East Fork of Meadow Creek.<sup>153</sup> Impacts to water quantity resulting from operation of an on-site water supply system must be disclosed along with any environmental impacts resulting from construction and operation, including sludge disposal, air emissions, wetlands impacts, and water pollution discharges.

#### i. Surface Water

The EIS should provide detailed information regarding how surface water will be protected during and after construction and mining operations. Surface support facilities (such as the fuel depot, truck shop, ore processing area, warehouses, oxygen plant, autoclave location, primary crusher,

<sup>&</sup>lt;sup>151</sup> PRO at ES-15.

 <sup>&</sup>lt;sup>152</sup>Final Assessment Unit Status Report 2014, IDEQ (September 17, 2015) (available at: <a href="http://mapcase.deq.idaho.gov/wq2014/scripts/adb2014.aspx?WBIDSEGID=ID17060208SL023\_03">http://mapcase.deq.idaho.gov/wq2014/scripts/adb2014.aspx?WBIDSEGID=ID17060208SL023\_03</a>).
 <sup>153</sup> PRO at D-14.

and explosives storage area)<sup>154</sup> will contain numerous chemicals and stockpiled ore. These facilities are located within the riparian buffer zone and are precariously close to the EFSFSR.

#### ii. Pit Lakes

The PRO proposes turning the West End pit and Hangar Flat pit into pit lakes.<sup>155</sup> The EIS should provide a detailed analysis of how long it will take for these pit lakes to fill, the water quality issues that these pit lakes will develop, and the steps Midas Gold will take once these pit lakes' water quality degrades. The Forest Service needs to pay special attention in the EIS to the potential that contaminated water from these pit lakes will reach the EFSFSR and Sugar Creek, both of which are known Chinook, steelhead, and bull trout spawning areas. Due to this risk, the Forest Service also needs to develop alternatives in the EIS that does not leave two pit lakes on the landscape; one alternative should call for backfilling, recontouring, and revegetating each pit after mining.

#### iii. Ground Water

Midas Gold proposes to remove vast quantities of waste rock and ore. This activity, in addition to the existing tailing piles at the Project site, poses a real threat to groundwater. The Forest thus needs to conduct groundwater modeling for the entire proposed mining area, as well as downstream, to predict possible contamination of the underground aquifer from construction and mining operations.

The EIS should provide detailed information regarding the potential for groundwater contamination and the potential that groundwater, contaminated by the proposed Project, will reach surface water. The EIS should also assess the threat this could cause to fisheries.

# iv. Water Withdrawals and Wastewater Discharge

The EIS should provide detailed information regarding Midas Gold's proposed water withdrawals, from both groundwater and surface water sources, for mining-related activities. Water withdrawals could negatively impact ESA-listed fish by reducing flows in relatively small streams for extended periods of time. Reductions in stream flows have the potential to reduce available habitat, concentrate fish in smaller pools, and disrupt normal behavior. Details on the frequency of water withdrawals, and how surface water withdrawal rates will be monitored, are needed in the EIS.

#### v. Water Treatment

The Forest should not approve any project that results in perpetual water pollution and/or that requires perpetual treatment. That being said, the EIS must include detailed plans for water quality monitoring and treatment in perpetuity. If acid mine drainage occurs at any point during or after mining operation, contingency plans must be in place. There must also be financial assurances that reflect the potential need for on-site water treatment plants into perpetuity.

<sup>&</sup>lt;sup>154</sup> PRO at ES-19, Figure ES-5.

<sup>&</sup>lt;sup>155</sup> PRO at ES-24.

#### vi. Cumulative Impacts

The EIS should also discuss all direct, indirect, and cumulative impacts to surface water and groundwater quality and quantity from the proposed Project and from the alternatives the Forest develops, both during operations and after closure including, but not limited to, the following:

- Describe all potential Project discharges, seepage, temporary ponding, diversions, and groundwater pumping, as well as the potential effects of these activities on water rights, quality, and flow; beneficial uses; fisheries; and wildlife.
- Develop quantitative predictions of how the Project would change pollutant levels in surface and groundwater, based on estimates of pollutant levels in predicted wastewater releases from mine facilities, including the open pit, waste rock piles, tailings disposal facilities, and leach facilities, etc.
- Describe the potential impact of predicted pollutant levels to human and aquatic health, using relevant water quality standards.
- Discuss the potential for contamination of meteoric water that contacts existing and proposed pit wall rock, waste rock, tailings, roads, and other mine facilities. Analyze the fate and transport of any such water and discuss the possibility for fisheries and wildlife exposure to mine influenced waters.
- Assess and describe potential impacts to groundwater, surface water, fisheries, and wildlife resulting from the formation of pit lakes following mine closure. This analysis should include a thorough geochemical analysis of pit wall and groundwater chemistries, a comprehensive ecological risk assessment, and hydrogeological modeling demonstrating whether the pit lake would likely represent a perpetual sink, or whether through-flow may occur.
- Discuss the potential for and effects of movement of any contaminated surface water to the subsurface, including through the pit bottom and through land subsidence fissures.
- Describe the projected chemical characterization of water in open ponds that would be located at the site, including tailings ponds. Describe the potential for such waters to enter external surface water features.
- Describe the designs of the proposed run-on/runoff channels, seepage collection systems, collection and sedimentation ponds, pump back systems, and any necessary treatment or disposal of these solutions. Depict these facilities on a map and describe all required monitoring/maintenance necessary to ensure proper functioning.
- Describe all other mitigation measures to prevent contamination of water and sediment.
- Discuss handling of accidental releases of hazardous materials.

- Identify the potential impacts of failure of the solution containment systems, methods for discovering such failures, and the degree to which impacts would be reversible.
- Describe the mine's petroleum-contaminated soil management plan.

# f. Permitting

The Forest needs to list and describe in the EIS all applicable water quality permits and stateadopted, EPA-approved water quality standards, including beneficial uses that apply to waters in the Project area. The Forest also needs to discuss each alternative's compliance with these permits and standards. The Forest should also provide the most up-to-date information pertaining to water quality and quantity management, and remediation activities requested or required by the Forest, IDEQ, or other applicable regulating body.

Federal regulations require stormwater discharges associated with specific categories of industrial activity to be covered under NPDES permits.<sup>156</sup> The Forest should discuss the applicability of the EPA's NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activities to this Project. The Forest should also develop and include a stormwater pollution prevention plan along with the EIS for public comment and should discuss specific mitigation measures that may be necessary during operations, closure, and post-closure. In addition, the Forest needs to describe the measures that Midas Gold will be required to employ to ensure the mine achieves and maintains a zero-discharge status to surface waters and groundwater for all phases of the Project.

The Forest should coordinate with the U.S. Army Corps of Engineers ("Corps") to confirm whether the Project will require a CWA Section 404 permit for discharge of dredged or fill material into "waters of the United States," including wetlands and other "special aquatic sites."<sup>157</sup> The EIS should further describe the status of coordination with the Corps. If potential environmental impacts to waters of the United States are found, the Forest must specify the acreages and channel lengths, habitat types, values, and functions of these waters. The Forest must also describe the potential impacts to these waters, discuss alternatives to avoid or minimize harmful impacts, and detail measures to mitigate potential impacts.

# g. Monitoring

The Forest needs to provide past and current monitoring results and trends for surface water and groundwater quality in the existing mine area. The Forest should also discuss all ongoing and proposed monitoring plans and their relevance in predicting the potential for, and protecting against, contaminated drainage from existing and future mine facilities.

The Forest must further describe procedures for water quality and quantity monitoring and reporting, including procedures for monitoring the function of the waste rock dumps, tailings storage facilities, pit lakes, and flow-through waters, and for controlling contact between this material and surface or meteoric water (e.g., maintenance of run-on/runoff channels, liners,

<sup>&</sup>lt;sup>156</sup> 40 C.F.R. § 122.26(b)(14)(i)-(xi)

<sup>&</sup>lt;sup>157</sup> 40 C.F.R. § 230.3.

underdrains, seepage collection areas, growth medium covers; ponding on top of facilities). The Forest needs to identify all monitoring locations for surface water, ponded water, and collected seepage; groundwater monitoring wells; and points of compliance on the site. The EIS should discuss monitoring frequencies, screening intervals, and parameters to be monitored during all phases of the Project, including post-closure.

#### h. Waters of the State and Habitat

The Forest should identify any non-jurisdictional wetland or riparian habitats adjacent to, or within, the Project area and describe how these waters have already been affected by existing operations, the extent to which the functions of these waters have been degraded, and the extent to which each action alternative might further degrade or contribute to an improvement in the quality of these resources. The Forest should also discuss measures for the avoidance, minimization, and mitigation of losses and address strategies for improving the quality and size of these areas. If important habitat will be adversely affected by the proposed Project, the Forest should include a detailed mitigation plan for habitat replacement, identifying:

- Acreage and habitat type that would be created or restored.
- Resources needed to maintain the mitigation area.
- Revegetation plans, including the number and age of each species to be planted.
- Maintenance and monitoring plans, including performance standards to determine mitigation success.
- Mitigation zones, including their size and location.
- Responsible parties for the plan's success.
- Contingency plans should the original plan fail.

# 2. Cultural Resources

The Forest must ensure that the Project will not negatively impact any cultural resources, including archaeological sites, historical structures, traditional cultural properties, sacred sites, historic properties of religious and cultural significance to Indian tribes, or the Stibnite Mining District, which is listed on the National Register of Historic Places.

The Forest should have an expansive Area of Potential Effect ("APE") that covers all proposed Project activities and locations. This APE must be developed in consultation with the Idaho State Historic Preservation Office ("SHPO") and the Tribe. SHPO and the Tribe should be afforded the opportunity to review any cultural resource scopes of work provided by archaeological contractors to ensure that the proposed survey work strategies and methodologies constitute a reasonable and good-faith effort to identify and evaluate all potential historic properties.

The Tribe has been informed that the required archaeological surveys have already been completed by outside contractors, although the Forest failed to consult with the Tribe when developing the APE. At this point, the Forest should provide all findings reports to the Tribe for review and comment. The Forest should work with the Tribe and SHPO to address any shortcomings or concerns identified in the archaeological survey reports.

The Forest must also complete ethnographic surveys to identify traditional cultural properties, sacred sites, and historic properties of religious and cultural significance to the Tribe throughout the Project APE. Examples of these resources include ancestral village and camp sites, legend sites, hunting areas, areas with native plants gathered for subsistence and cultural purposes by tribal members, and spiritual supplication sites.

The Tribe has unique knowledge of these ethnographic resources. The Forest should work directly with the Tribe and its Cultural Resource Program, preferably contracting directly with them, to complete the research required to identify these resources and any potential effects the proposed undertaking may have on them. The Forest must determine the effects the undertaking may have on these properties and develop strategies to avoid, minimize, or mitigate any negative impacts from the mining proposal and related proposed activities.

The Tribe's Cultural Resource Program is particularly concerned about the impacts of the Burntlog Road and proposed recreation trails and snowmobile routes on traditional cultural properties and sacred sites. Increased public access use has a strong potential to negatively impact traditional activities. Most traditional hunting and gathering activities are carried out in isolated areas without persistent observation by non-tribal peoples. In particular, spiritual supplication requires individual isolation, which needs a natural viewshed and soundscape. Both are easily disturbed by increased recreational use and motorized vehicle access in the vicinity of supplication sites.

# 3. Fisheries

# a. Fishery Distribution

The EIS should present a map of the present distribution of fish species in the Project area. The PRO highlighted potential benefits to fisheries but did not adequately weigh the potential impacts to ESA-listed fish species. It is critical to understanding how fish species can be affected by the current proposed mining operations such as fuel and chemical transport, sediment delivery to streams, tailing and waste rock facilities located on streams currently occupied by ESA-listed fish, and pit lakes impacting water quality. Data showing the distribution of fish species in the Project area should use all known fishery data such as Environmental DNA results taken by the Tribe that show bull trout are present in the EFSFSR above and below the Stibnite Glory Hole and in tributaries such as Fiddle Creek, Meadow Creek, and West End Creek.

# b. Fishery Take

The EIS should quantify and disclose the amount of incidental and direct take regarding ESAlisted and resident fish species due to the impacts of this proposed mine. ESA-listed fish are currently known to reside in the Stibnite Glory Hole of the EFSFSR, Meadow Creek, Fiddle Creek, and West End Creek all of which will be heavily impacted or filled in by mining operations. Clearly understanding how fish take estimates are calculated will be critical to evaluating the EIS. If post-reclamation annual fish population estimates are provided such as those listed on Table 5-1 of the PRO,<sup>158</sup> then details of how those estimates are calculated needs to be included. As the EIS is being composed, additional fishery surveys should be conducted on all streams that will be impacted by the proposed mine.

#### c. Fishery Passage Tunnel

The PRO highlights the benefits of using a tunnel to enable fish to pass the Stibnite Glory Hole.<sup>159</sup> Because of the many complexities of passing anadromous fish through a 0.8 mile tunnel such as gradient, flow regime, lighting, substrate, sediment transport, and resting areas for fish, more details are needed to adequately evaluate this proposal. It would be helpful for the Forest to provide examples and literature of where a similar tunnel has been successfully used. In the event that the tunnel does not enable fish to pass the Stibnite Glory Hole, it appears the contingency plan is to truck the fish to the spawning grounds.<sup>160</sup> The Tribe currently does this and so this contingency plan would not provide any additional restoration benefits. If Midas Gold is unable to build the tunnel, where would the EFSFSR be rerouted?

# d. Blowout Creek

As noted in the PRO, Blowout Creek continues to be a chronic source of sediment to Meadow Creek and the EFSFSR.<sup>161</sup> Reclamation plans for Blowout Creek should be detailed enough so that an adequate evaluation of this proposal can be made. The current sidewalls are unstable and require significant reworking of the steep terrain. While the Stibnite Glory Hole has been detrimental to fish passage, it has acted as a sediment trap for Blowout Creek. Because the Stibnite Glory Hole will be removed during mine operations, the reclamation work at Blowout Creek and Hangar Flats Lake must successfully reduce sediment because all sediment will be passed through the tunnel and will affect instream conditions in the EFSFSR.

# e. Wetland and Riparian Habitat

Scientific literature has well documented the importance of wetland and riparian habitat for fisheries and wildlife needs. The EIS should thus quantify and document the amount of wetland and riparian habitat that will be lost due to the proposed Project.

The current Project site is heavily degraded from historic mining activities but it does include some riparian and wetland habitat. The proposed Project removes much of this habitat, including wetlands in the upper Meadow Creek and riparian habitat in Fiddle Creek and West End Creek. The reclamation plans call for the development of new wetlands and riparian habitat, but development could prove difficult due to the short growing season and limited soil available at the

<sup>&</sup>lt;sup>158</sup> PRO at 5-4.

<sup>&</sup>lt;sup>159</sup> PRO at 8-10.

<sup>&</sup>lt;sup>160</sup> PRO at 8-11.

<sup>&</sup>lt;sup>161</sup> PRO at 8-12.

Project site. The Forest should therefore put in place contingency plans for wetland and riparian habitat restoration; these should use locally-sourced plants for genetic stock.

# f. Alterations to Site Hydrology

The EIS should include detailed information in regards to the impacts of altering current hydrology due to the removal of vast sums of rock and placing that material in developed rock storage facilities and tailing storage facilities. Filling in Upper Meadow Creek, Fiddle Creek, and West End Creek valleys with material removed from alternate locations will greatly alter the current hydrology at the site, which will in turn alter plant communities, wildlife, and fisheries.

# g. Sediment Delivery to Streams

The effect of anthropogenic-related sediment on fisheries is well documented in scientific literature. The Forest should therefore quantify and identify in the EIS potential sediment delivery from the proposed Project to area streams. Haul road traffic, surface support facilities, waste rock, ore removal, and reclamation activities all have the ability to contribute sediment to streams.

# h. Watershed Restoration

The PRO claims that impaired watersheds will be restored as part of the Project but fails to identify the standards that will govern the restoration activities. The Forest must identify and justify in the EIS the enforceable restoration standards that will be used to judge the success of the cleanup effort.

# 4. Vegetation and Wildlife

# a. General Comments

The Forest needs to demonstrate that this Project will not harm the hunting, fishing, trapping, and gathering rights and activities of the Tribe. Past mining activities have left long-standing impacts throughout the Project area, impacts that already reduce vegetation and wildlife resources that support treaty-reserved rights. This Project must be designed and implemented in ways that do no further harm to the Tribe's treaty-reserved rights and resources. That being said, and according to United Research Services and site visits, many mine-affected areas remain in poor condition and lack vegetation because revegetation efforts have been nonexistent, failed, or heavily impacted by browsers.<sup>162</sup>

Given the lack of past and current successes and poor growing site conditions, it seems unlikely that Midas Gold will be able to establish healthy and resilient ecosystems in the Project area. Moreover, the current PRO lacks sufficient detail to assuage a number of profound concerns regarding the impacts of this Project. The avoidance, mitigation, and monitoring of impacts must

<sup>&</sup>lt;sup>162</sup> Stibnite Area Site Characterization Report, United Research Services, p. 22 (September 8, 2000) (available at: https://www.deq.idaho.gov/media/571926-

newinternet\_waste\_data\_reports\_mining\_waste\_stibnite\_characterization\_rpt\_execsum\_0900.pdf).

be thoughtfully considered by the Forest and fully employed throughout the Project's design and implementation.

The Forest needs to address in the EIS potential direct, indirect, and cumulative impacts to vegetation, including but not limited to:

- Direct removal of vegetation.
- Direct and indirect alteration of plant habitat and landscape conditions (erosion, hydrology, successional processes, community composition and diversity, etc.).
- Direct and indirect changes in habitat connectivity and gene flow.
- Introduction and spread of exotic or invasive plant species.

The EIS also needs to address potential direct, indirect, and cumulative impacts to wildlife, including but not limited to:

- Direct wildlife mortality (vehicle collisions, depredation actions, etc.).
- Direct and indirect alteration of wildlife habitat conditions (displacement, disturbance, community composition, diversity, etc.).
- Fugitive emissions, incidental releases of mercury, noise, and vibrations.
- Direct and indirect changes in habitat connectivity and gene flow.
- Introduction of exotic or invasive wildlife species.

The Forest also needs to address in the EIS potential direct, indirect, and cumulative impacts to the exercise of treaty-reserved rights associated with hunting and gathering, including but not limited to:

- Lost access to formerly-accessible areas.
- Direct losses of hunting and gathering sites (see above).
- Direct and indirect degradation of hunting and gathering areas (see above).

# b. Vegetation and Wildlife Mitigation

As described in the PRO, this Project is expected to result in large-scale and inherently unavoidable impacts to upland vegetation and wildlife. The PRO's proposed storage facilities for tailings and rock, newly-constructed motorized routes and trails, fundamental changes to the type and frequency of traffic on existing routes, new recreation access patterns, and powerline development are examples of such impacts.

In the EIS, the Forest needs to evaluate impacts, as well as direct mortality, disturbance in adjoining areas, the spread of weeds, and other associated potential impacts. The Forest also needs to identify how it will avoid or mitigate these impacts. As described in the PRO, most current mitigation measures are designed to address aquatic impacts and resource concerns. Though beneficial, such mitigation measures would not appropriately account for the upland impacts described above.

Mitigation measures for specific impacts are likely to be needed as well. These include designing fences to permit wildlife passage in suitable areas, using raptor-proof power transmission poles and raptor-safe power lines, reducing speeds to minimize mortality on roads and trails, and instructing employees not to harass or disturb wildlife or damage native vegetation. The Forest also needs to establish protocols and restrictions to prevent exposure of migratory birds and other wildlife to toxic substances, spills, and mine-affected waters (including any open pit lakes) and to reduce traffic and roadway conflicts. Mitigation plans should include measures to protect and minimize impacts to migratory bird nests located in the path of mining, road construction and maintenance, trail development, travel, and power transmission lines. Authorized and permitted personnel should relocate nests to a suitable location within the species' territory after consultation with the Fish and Wildlife Service, Idaho Fish and Game, and the Tribe. The Forest should also address management strategies to use when wildlife interferes with mining operations and reclamation.

#### c. Burntlog Access Road

The Forest needs to evaluate in the EIS direct, indirect, and cumulative impacts to vegetation and wildlife from the new Burntlog Access Road and evaluate suitable route alternatives. As proposed, the route will occur in an Inventoried Roadless Area ("IRA") and traverse high elevation ridges and habitats. What is the mitigation plan for the development and use of the route? Will the Forest amend the Boise National Forest Land and Resource Management Plan to allow a route in an IRA? Will the Forest consider this "long-term, temporary mine access and public bypass route"<sup>163</sup> a system road? Who will be responsible for maintenance and snow removal? How many perennial and intermittent stream crossings are needed for this new route? Is there a guarantee that the Burntlog Access Road will be completely decommissioned and recontoured after mine closure? There are different degrees of road decommissioning, the Forest needs to define and describe decommissioning under initial closure and reclamation.

# d. Powerline Access

The PRO estimates 44,100 linear feet of new powerline,<sup>164</sup> albeit using the existing corridor and right-of-way to the Project site.<sup>165</sup> The Forest should disclose and analyze in the EIS the short-term and long-term direct, indirect, and cumulative impacts to wildlife and vegetation, including, but not limited to, loss of habitat from the construction and of the new eight-mile powerline, habitat

<sup>&</sup>lt;sup>163</sup> Payette and Boise National Forests; Valley County, Idaho; Stibnite Gold Project Environmental Impact Statement, 82 Fed. Reg. 25759-01 (June 5, 2017).

<sup>&</sup>lt;sup>164</sup> PRO at ES-4.

<sup>&</sup>lt;sup>165</sup> PRO at ES-11.

impacts from the construction and presence of two new substations (Johnson Creek Airport and Project millsite), and avian electrocution and collisions caused by the existing and proposed power lines. The Forest needs to provide a mitigation plan for powerline impacts to habitat and wildlife.

#### e. Monitoring

It is essential that the Forest develop a detailed and comprehensive monitoring plan that captures baseline conditions, design, implementation, mitigation, and reclamation. This monitoring plan should be carried out to the fullest extent possible. The Forest should clearly identify specific protocols to monitor all resource protection criteria and design features and provide clear enforcement processes when and if such criteria or plans are violated.

# e. Carbon Sequestration and Climate Change

The amount of disturbance and potential release of carbon from the Project's activities may outweigh any carbon benefits provided by reclamation and reforestation. The Forest thus needs to evaluate both short-term and long-term impacts and include a cost-benefit analysis of carbon and emissions for each alternative in the EIS. Midas Gold also needs to provide evidence to support the claim that their reforestation will sequester greenhouse gases to such an extent that it will provide a long-term benefit.

# f. Special Status Species

The Forest should work closely with the Fish and Wildlife Service and the Tribe to determine potential direct, indirect, and cumulative impacts of the Project on plant and wildlife species, including, but not limited to, species classified as threatened, endangered, proposed, or candidate species under the ESA as well as Idaho Species of Greatest Conservation Need, Forest Service Intermountain Region Sensitive Species, and Forest Management Indicator Species. The Forest needs to identify potential impacts to species protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act for each alternative in the EIS. Particular attention should be paid to the bent-flower milkvetch (*Astragalus vexilliflexus* var. *vexilliflexus*).

In addition, the EIS should describe in detail:

- How surveys were conducted for each species, their findings, and all follow-up surveys and monitoring that would be conducted before, during, and after mining.
- The Project's consistency with existing resource management plans applicable to the proposed Project area, including the goals, objectives, land use allocations, and management decisions and actions prescribed in such plans.

Furthermore, the Forest should incorporate the biological assessment and biological opinion (if developed) in the EIS by reference or as an appendix and demonstrate that the preferred alternative is consistent with that assessment or opinion. The Forest should also include detailed mitigation measures in the EIS to address impacts to Special Status Species and their habitats that could not be avoided.

#### 5. Air Quality

The Forest must accurately identify in the EIS all air pollution emissions associated with the Project and determine the impacts of these air pollution emissions on compliance with National Ambient Air Quality Standards ("NAAQS"), Prevention of Significant Deterioration increments, regional haze requirements, and National Emission Standards for Hazardous Air Pollutants.

#### a. General Comments

The PRO states that on-site generators will be used to generate electric power during initial construction activities.<sup>166</sup> In addition, there will be daily vehicle traffic to the site and eventually on-site residences. Heavy equipment operation will occur at the site starting with initial construction, through the major mining operations, and into closure and reclamation activities. This includes operation of "blast-hole drills, shovels, front-end loaders, and off-highway trucks" as well as "dozers, rubber-tired loaders, motor graders, water trucks and other mobile support equipment."<sup>167</sup> In addition, there will be ore processing on-site.<sup>168</sup>

The Forest must include in the EIS a robust analysis of these Project components potential to affect air quality. The EIS should:

- Describe existing air quality in the Project vicinity.
- Discuss the NAAQS and Prevention of Significant Deterioration ("PSD") increments applicable to air quality in the Project area.
- Discuss PSD applicability and whether a PSD permit might be required.
- Explain impacts to the NAAQS and PSD increments from projected emissions of the Project and alternatives, considering the effects from all aspects of mine exploration, excavation, construction, operation, and support activities, such as vehicle traffic, as well as cumulative emissions from other sources in the Project area.

The Forest should closely coordinate with IDEQ regarding regulatory requirements and controls. The EIS should summarize Project emissions from all facilities and roads related to the mine's operations, including any off-site processing and support activities, such as vehicle traffic and delivery trucks for fuels, maintenance supplies, and other materials, as well as cumulative emissions from other sources in the Project area. The EIS needs to include the air emissions resulting from the construction and operation of these facilities, including those resulting from right-of-way disturbance and road construction and use.

Modeling should be used to determine concentrations of criteria air pollutants for an accurate comparison with the NAAQS.

<sup>&</sup>lt;sup>166</sup> PRO at ES-11 and ES-14.

<sup>&</sup>lt;sup>167</sup> PRO at ES-16.

<sup>&</sup>lt;sup>168</sup> PRO at ES-17.

PSD increments are highly protective of air quality in Class I areas, such as wilderness areas and National Parks. The Forest should identify in the EIS all Class I PSD areas located within 100 kilometers of the proposed Project site. Class I areas even farther away could be affected as well. The Forest should consult with the BLM and National Park Service for a determination of which areas could be adversely affected by the proposed action. Potential impacts to Class I PSD areas, including visibility impacts, should be analyzed and discussed and no project can be approved that may violate the PSD increments for any pollutant.

The EIS needs to discuss mitigation measures to minimize air pollutant emissions from the mine, and include measures to address potential impacts to nearby residents, including sensitive receptors. Diesel particulate matter ("DPM") and other criteria pollutants from fugitive sources at the mine can be reduced by implementing appropriate mitigation measures, such as the following:

- Use particle traps and other appropriate controls to reduce emissions of DPM and other air pollutants. Traps control approximately 80% of DPM. Specialized catalytic converters (oxidation catalysts) control approximately 20% of DPM, 40% of carbon monoxide emissions, and 50% of hydrocarbon emissions.
- Minimize construction-related trips of workers and equipment, including trucks and heavy equipment.
- Lease or buy newer, cleaner equipment (1996 or newer models).
- Employ periodic, unscheduled inspections to ensure that construction equipment is properly maintained at all times and does not unnecessarily idle, is tuned to manufacturer's specifications, and is not modified to increase horsepower except in accordance with established specifications.

The Forest should discuss in the EIS whether and how air quality monitoring would be implemented to ensure Project compliance with all applicable air quality standards and permits.

#### b. Hazardous Air Pollutants

Include estimated releases of hazardous air pollutants ("HAPs"), including mercury, from the proposed Project to air, soil, and water resources, including any off-site facilities instrumental to mine operations (i.e. any off site ore processing). The Forest should list in detail in the EIS all possible sources of HAPs and the unit processes that generate this material, including major/thermal processing equipment. The Forest should also discuss how all HAPs would be controlled to reduce their emissions as much as possible. This discussion should identify measures and equipment that would be used to condense, capture, and/or treat HAPs, including mercury. The Forest needs to explain how these measures are effective in removing HAPs and making it unavailable for release into the environment and must indicate how any captured mercury and other hazardous compounds would be disposed of.

The Forest needs to discuss in the EIS the likely fate and transport of mercury air emissions from the proposed Project and describe the cumulative amount of mercury that is annually emitted to the air in Idaho. Finally, the Forest should describe the HAPs monitoring that would be conducted, including locations and reporting requirements.

# 6. Climate Change

The PRO states that "[t]he combination of efforts to reduce greenhouse gas emissions and extensive reforestation will limit contributions to climate change."<sup>169</sup> Nevertheless, the EIS must also evaluate the impacts to global climate change resulting from the creation and release of greenhouse gases resulting from the Project.

On March 28, 2017, the current administration signed Executive Order 13783<sup>170</sup> which, among other things, required the CEQ to rescind its final guidance entitled, "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews."<sup>171</sup> On or about April 5, 2017, CEQ rescinded the above-referenced guidance. Executive Order 13783 also withdrew technical support documents establishing the social cost of carbon as the official methodology of the government in determining climate impacts caused by greenhouse gas ("GHG") emissions.

Although these withdrawals left the government without a standard scientific methodology for calculating climate impacts, the withdrawals did not eliminate the need to consider the impacts of GHG emissions in the NEPA process. Thus, the Forest will have to adopt a new methodology for calculating climate impacts prior to issuance of an EIS for this Project.

On April 20, 2017, the Congressional Review Service ("CRS") reviewed Executive Order 13783 and determined that prior to the issuance of the rescinded guidance, "some courts had faulted federal agencies for insufficiently taking into account climate-related impacts of their proposed actions" in NEPA reviews.<sup>172</sup> The CRS concluded that "in order to comply with such rulings, federal agencies will still likely need to consider the impacts that their proposed actions would have on greenhouse gas [...] emissions and climate change."<sup>173</sup> As to the social costs of carbon methodology, the CRS states:

[F]ederal agencies may still be required to take into account the costs of carbon in their rulemakings and NEPA reviews. For example, Executive Order 12866, issued in 1993, requires most agencies to consider the costs and benefits of economically significant rules, including the cost of adverse effects in the "natural environment." The new Executive Order 13783 does not remove the requirement to consider environment-related costs and benefits associated with regulatory actions, including revisions or withdrawals of rules. In these instances, the executive order

<sup>&</sup>lt;sup>169</sup> PRO at ES-3.

<sup>&</sup>lt;sup>170</sup> Promoting Energy Independence and Economic Growth, 82 Fed. Reg. 16093 (Mar. 28, 2017).

<sup>&</sup>lt;sup>171</sup> 81 Fed. Reg. 51866-01 (Aug. 5, 2016).

 <sup>&</sup>lt;sup>172</sup> New Executive Order Directs Agencies to Revise or Rescind Climate Change Rules and Polices, April 20, 2017, available at https://fas.org/sgp/crs/misc/eo-rescind.pdf. See also Center for Biological Diversity v. National Highway Traffic Safety Administration, 538 F.3d 1172 (9th Cir. 2008) (NEPA analysis of climate change impacts).
 <sup>173</sup> Id

directs agencies to be consistent with the guidance in the Office of Management and Budget (OMB) Circular A-4, dated September 17, 2003, when analyzing the value of changes in GHG emissions resulting from regulations. Although the OMB Circular A-4 provides guidance on how to conduct cost-benefit analysis in rulemakings, it mentions climate change costs and benefits only once. In the circular, OMB recommends that federal agencies should analyze and present uncertainties related to its cost-benefits analysis of regulatory options, including, "for example, the uncertain knowledge of how some economic activities might affect future climate change." Without additional guidance, in order to comply with Executive Orders 12866 and 13783 and NEPA requirements, federal agencies will likely still need to determine how to assess the climate-related costs and benefits associated with rulemakings.<sup>174</sup>

In summary, we request that the Forest conduct a full and complete analysis of the impacts associated with GHG emissions from the proposed mine, existing GHG emissions from historic activity and the current condition of the site, as well as the combined, cumulative impacts the would be caused by the proposed Project in combination with other existing and proposed GHG emitting sources in the region. We request that the Forest use the accepted social cost of carbon methodology in conducting this analysis. If the Forest refuses to use this methodology in its analysis, we request that, prior to issuing an EIS for this Project, the Forest (or Forest Service) promulgate a new methodology for assessing the impacts associated with GHG emissions for NEPA reviews. We request that this new methodology be subject to public comment and review prior to its adoption. The Forest simply cannot proceed with this NEPA review until it adopts a new methodology is adopted for determining impacts associated with GHG emissions.

# 7. Miscellaneous Resource Issues that Must be Addressed

Midas Gold proposes to include a helicopter pad at the Project site.<sup>175</sup> The EIS must evaluate the impacts to noise, recreation, and wildlife from operating a helicopter at the site and through the Forest.

The Project will require almost 70 miles of new or upgraded 138 kv electric transmission lines.<sup>176</sup> The EIS must evaluate the impacts to wildlife, birds, noise, electromagnetic fields, recreation, soils, and watersheds resulting from construction of the transmission line. This and other power, water, and other conveyances must be regulated pursuant to Federal Land Policy and Management Act Title V and the Forest Service special use permitting regime, not the Mining Law and the 36 C.F.R. Part 228 regulations.

The PRO states that post closure monitoring at the site will be limited to "several years of followup monitoring to measure the success of the closure and reclamation activities."<sup>177</sup> The Project creates the potential for water pollution contamination in perpetuity; therefore, the EIS must include monitoring requirements that extend much longer than "several years" after closure.

<sup>&</sup>lt;sup>174</sup> Id.

<sup>&</sup>lt;sup>175</sup> PRO at ES-19, Figure ES-5.

<sup>&</sup>lt;sup>176</sup> PRO at 7-8 to 7-9.

<sup>&</sup>lt;sup>177</sup> PRO at ES-21.

Stormwater and sediment best management practices must be maintained. The "closed circuit" tailings storage facility must be monitored to ensure it does not leak into local watersheds.<sup>178</sup> At a minimum, the post-closure monitoring should extend as long as the years of operation at the site (12-15 years).

Midas Gold will conduct "blasting" activities at the site using explosives.<sup>179</sup> The EIS must assess impacts to recreation, wildlife, air quality, water quality, and surface subsidence resulting from use of explosives at the site.

The PRO states that various state and federal agencies "have performed several removal actions in the area…"<sup>180</sup> We assume the term "removal actions" refers to actions taken pursuant to the federal Superfund law ("CERCLA").<sup>181</sup> The EIS should gather and disclose all site assessments conducted pursuant to CERCLA. In addition, all decision documents related to these removal actions should also be gathered and disclosed with the EIS.

Midas Gold will transport and store hazardous materials, including cyanide and explosives.<sup>182</sup> The EIS must evaluate the potential impacts associated with transporting these hazardous materials to the site and there storage at the site.

The PRO states that "legacy tailings remain buried over much of the area, including under the airstrip and adjacent to Meadow Creek."<sup>183</sup> The PRO also states that "[t]he majority of the legacy tailings are now located below the alluvial water table" at the SODA.<sup>184</sup> "In addition, the upstream wetland, located west of the legacy tailings and SODA [...] is also underlain by tailings."<sup>185</sup> The EIS must include a comprehensive survey and mapping of all legacy tailings at the site, the environmental impact of these legacy tailings in their current condition, and the potential for future environmental impacts resulting from future operations at the site.

Given the U.S. government's historic mining activities at the Project site,<sup>186</sup> the Forest owes it to the public to ensure that the legacy pollution is cleaned up at the site. The Forest also has a legal obligation to ensure that the legacy pollution is cleaned up to applicable standards before approving any future activity at the site. This means that the Forest must require Midas Gold to meet its current environmental obligations at the site, regardless of whether the PRO is approved.

The Forest 1982 EIS and ROD related to the open pit oxide mining operation in the West End area of the Project site should be included as an attachment to the EIS.<sup>187</sup>

<sup>186</sup> PRO at D-20.

<sup>&</sup>lt;sup>178</sup> PRO at 10-9.

<sup>&</sup>lt;sup>179</sup> PRO at 9-2 and 9-8.

<sup>&</sup>lt;sup>180</sup> PRO at D-18.

<sup>&</sup>lt;sup>181</sup> Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 et seq.

<sup>&</sup>lt;sup>182</sup> PRO at 12-10.

<sup>&</sup>lt;sup>183</sup> PRO at D-18.

<sup>&</sup>lt;sup>184</sup> PRO at D-36 fn. 7.

<sup>&</sup>lt;sup>185</sup> Id.

<sup>&</sup>lt;sup>187</sup> PRO at D-35.