Data Submitted (UTC 11): 8/23/2021 11:00:00 AM
First name: Lisa
Last name: Anderson
Organization: Nez Perce Tribe
Title: Legal Assistant
Comments: Dear Reviewing Officer:

On behalf of the Nez Perce Tribe ("Tribe"), I write to submit the attached Objection to the Clear Creek Integrated Restoration Project ("Project") on the Nez Perce-Clearwater National Forests ("Forest"). Although the Forest has updated its analysis of the Project, it has not fully addressed in the Project's Draft Record of Decision ("DROD") and Final Supplemental Environmental Impact Statement ("FSEIS") many of the fundamental concerns the Tribe has consistently and in good faith raised, and attempted to resolve, with the Forest since 2012. The Tribe, therefore, Objects.

The Tribe has carefully tracked, commented on, and litigated the Project since the Forest introduced it in 2012. The Tribe's deep interest in the Project stems from the Project's location in a watershed of great importance to the Tribe, within the heart of the Tribe's aboriginal homeland where Tribal members exercise treaty-reserved rights. The Tribe previously managed the Clear Creek Watershed for thousands of years and the Watershed today discharges onto the Nez Perce Reservation.

From the Project's inception, the Tribe has supported the Project's purpose: "to manage forest vegetation to restore natural disturbance patterns; improve long-term resistance and resilience at the landscape level; reduce fuels;... improve habitat for early seral species; and maintain habitat structure, function, and diversity" in the Clear Creek Watershed. The Tribe agrees with the Forest that due to a lack of recent fire or active management, the Clear Creek Watershed's vegetation has [middot] departed, in some areas, from its historical range of variability. Some tree stands are overstocked, and as a result, those stands' understory conditions are not favorable to many wildlife species. Consequently, the Tribe also agrees that some active management is needed within the Clear Creek Watershed. The Tribe evinced its support for active timber management by allowing the Forest to use the almost $1,000,000 the Tribe expends on fisheries restoration as a partner-in-kind contribution for the Selway-Middle Fork Collaborative Forest Landscape Restoration Program of which the Project is a key component.2

From the Project's inception, the Tribe has, also highlighted the damage done to the Clear Creek Watershed from past timb,e r harvest and the extensive road network that harvest left behind. This intensive management degraded fish habitat and increased sediment loads in Clear Creek, on which the downstream Kooskia National Fish Hatchery, which the Tribe manages, relies for its operations. The Clear Creek Watershed's legacy road network has also compromised elk security.

The Tribe has, therefore, always conditioned its support for timber management within the Clear Creek Watershed. The Tribe has clearly and repeatedly stated that any timber management must be accomplished with the key objective of correcting the Clear Creek Watershed's chronic habitat issues. In this vein, the Tribe has

repeatedly told the Forest that in order for the Project to actually achieve, two of its stated core purposes-to "improve watershed conditions [and] elk habitat

- .

effectiveness" the Forest must do everything it can to minimize Project-related sediment delivery to natural spawning fish habitat by minirni2;ing new roads, designing harvest units at low risk of delivering sediment to area streams, and fixing and closing legacy roads that are contributing sediment to spawning habitat. The Tribe has also repeatedly told the Forest that it must seriously and thoughtfully address, through the Project's design, the degraded elk security in the Clear Creek Watershed.

The Project the Forest proposed in 2015 did little to address the Tribe's concerns. The Forest proposed timber harvest, including 53 harvest units at high risk of delivering sediment to Project area streams, and miles of new temporary roads. The Forest's 2015 Project also did little to understand and address elk security in the Clear Creek Watershed; instead, the Forest remained almost single-mindedly focused on developing additional elk forage through timber harvest. Since 2016, the Forest has 4pdated the Project's fish habitat and sediment analyses and its elk habitat analyses, And, the Forest has also modified its original preferred altern1;ttive, Alternative C, to 'create and select as its new preferred alternative Alternative C Modified.

Alternative C Modified is a limited improvement on the Forest's 2015 Project design. However, Alternative C Modified, as the Tribe has stated since 2018, does not satisfactorily address the Tribe's ongoing concerns about th, e Project. Alternative C Modified eliminates just 19% of the timber units identified by the Tribe as at high risk of delivering sediment to area streams and does not minimize the road network being constructed or reconstructed as part of the Project. Consequently, it has not sufficiently reduced the threat of sediment delivery to the Clear Creek Watershed's degraded streams and the Kooskia National Fis4 Hatchery, neither of which, can handle much, if any, additional sediment. In developing Alternative C Modified, the Forest also failed to fully and accurately use the Servheen guidelines to calculate elk habitat effectiveness and elk vulnerability. The Forest's failure to fully and accurately implement the Servheen guidelines is deeply troubling to the Tribe, which fought hard in the late 1980s and 1990s to have the Forest develop and incorporate the Servheen guidelines into the 1987 Forest Plan. The fact that decades later the Forest is still failing to run the Servheen model correctly and is dedining to make any scientifically-informed changes to the Project design to improve elk security, is deeply disheartening to the Tribe. For these reasons, the Tribe cannot support Alternative C Modified. For the same reason the Tribe cannot support the Forest's selection of Alternative D for adaptive management in the Project area,

The Tribe specifically asked the Forest in 2018 to modify Alternative D, which calls for minimum road construction, to eliminate harvest units at high risk of delivering sediment to area streams, and-[middot] based on a science-based analysis of the Clear Creek Watershed-change harvest unit design and close roads to permanently increase elk security in the Clear Creek Watershed.' This Alternative D Modified would likely strike the right balance between the resource benefits active management can provide and the resource needs that active timber management cannot address in the Clear Creek Watershed. Unfortunately, the Forest chose not to

develop Alternative D Modified for analysis a the Tribe requested. The Tribe, therefore, renews its request that the Forest develop and select Alternative D Modified for the entire Project.

President Biden's recent Executive Order 13990, Protecting Public Health nd the Environment and Restoring Science to Tackle the Climate Crisis, directs executive departments and federal agencies "to immediately review and, as appropriate and consistent wit.h applicable law, take action to address the promulgation of Federal regulations and other actions during the last 4 years that conflict with" the Biden Administration's commitment to, among other things, promote and protect public health and the environment, to be guided by science, and to advance environmental

j stice.5 As part of this review, President Biden has directed executive departments and agencies

to seek input froin tribal officials. The Tribe believes that, in light of this direction, the Forest should work seriously with the Tribe to revise the FSEIS and develop a DROD the Tribe can support. The Tribe also believes that in light of the serious declines in Snake River Basin steelhead, the Forest should reinitiate consultation with NOAA Fisheries to take a hard look at the cumulative effects of the Project and Forest-wide actions over the last two decades on Snake River Basin steelhead.

The Tribe's Objection to Alternative C Modified follows. Pursuant to 36 C.F.R. [sect] 218.1 l(a), the

Tribe requests an Objection esolution meeting. Please contact Marie Balieza, Executive Assistant to the Nez Perce Tribal Executive Committee, at (208) 843-2253 or mariea@nezperce.org to schedule the meeting,

NEZ PERCE TRIBE'S OBJECTION TO THE CLEAR CREEK INTEGRATED RESTORATION PROJECT SUPPLEMENTAL FINAL ENVIRONMENTAL IMPACT STATEMENT AND DRAFT RECORD OF DECISION

August 23, 2021

The Nez Perce Tribe ("Tribe") hereby Objects to the U.S. Forest Service's Draft Record of Decision ("DROD") to implement Alternative C Modified as analyzed in the Final Supplemental Environmental Impact Statement ("FSEIS") for the Clear Creek Integrated Restoration Project ("Project") and requests an Objection resolution meeting in accordance with 36 C.F.R. [sect] 218.11(a). The Project is located on the Moose Creek Ranger District of the Nez Perce-Clearwater National Forests ("Forest"), within the heart of the Tribe's aboriginal homeland. Cheryl F. Probert is the Responsible Official.

Pursuant to 36 C.F.R. [sect] 218.5(a) and (b), the Tribe is eligible to object to this Project. The Tribe has been engaged in discussions regarding this Project since 2012. The Tribe first submitted specific written comments in 2013, during the Project's scoping period. Since 2013, the Tribe has sent several letters to the U.S. Forest Service highlighting its resource-related concerns with the Project and the need for an alternative water source at the Kooskia National Fish Hatchery prior to implementation of the Project;6 submitted comments during every public comment period for the Project; attended upwards of a dozen staff-to-staff meetings with the Forest;

participated in at least three government-to-government consultations with the Forest; litigated the Project; and entered into a Statement of Understanding ("SOU") with the Forest to "identify mutual needs and concerns" with regard to the Project. This engagement has led to the Forest updating several of their analyses in helpful ways. Unfortunately, this engagement has not led to the substantive changes to the Project design that the Tribe has asked for since 2017 and throughout its coordination with the Forest under the SOU. This document constitutes the Tribe's second Objection to the Project.

The Tribe has discussed all issues listed in this Objection in its formal comments and government[shy] to-government consultations with the Forest as required by 36 C.F.R. [sect] 218.8(c) and U.S. Forest Service policy.

In accordance with 36 C.F.R. [sect] 218.8(d), the Tribe's lead Objector's name, address, telephone number and address are:

1.
Importance of the Clear Creek Watershed to the Tribe

The Project is proposed within the Clear Creek Watershed, which comprises the heart of the aboriginal homeland of the Nez Perce people, the Nimiipuu. When the Tribe entered into a Treaty with the United States government in 1855, to protect its people, culture, and way of life, it reserved to itself the Clear Creek Watershed.

Unfortunately, the 1855 Treaty was quickly followed by the discovery of gold within the Tribe's Reservation boundaries and by the rapid influx of miners onto the Tribe's newly established Reservation. Rather than excluding the miners, the United States government sought a new treaty with the Tribe. The United States' 1863 Treaty with the Tribe, which Nimiipuu often refer to as the "Steal Treaty," forced the Tribe to cede to the United States approximately 90 percent of the land it had reserved in its 1855 Treaty, including the Clear Creek Watershed. The Steal Treaty also prompted the War of 1877 in which Chief Joseph and approximately 700 Nez Perce were forced from their homeland by the U.S. Army and on a 1,170-mile flight through four states. Over 200 Nez Perce men, women, and children died or were wounded during the 1877 War and many more Nez Perce were permanently displaced from their homeland.

The 65,000-acre Clear Creek Watershed remains critically important to Nez Perce Tribal members. It sits directly adjacent to the Tribe's modem Reservation and drains onto the Reservation. Tribal members also continue to use the Clear Creek Watershed, like untold generations before them, for everyday subsistence activities.

The Clear Creek Watershed is also critically important to anadromous fish in the Columbia River Basin. Not only does the Clear Creek Watershed provide important natural spawning and rearing habitat for listed Snake River Basin steelhead and bull trout, but it drains into Clear Creek, the primary water supply for the Tribe's Kooskia National Fish Hatchery ("Kooskia Hatchery" or "Hatchery"), and into the Middle Fork Clearwater River, a vital Nez Perce fishery.

Importance of the Watershed to Elk

The Clear Creek Watershed's cultural significance and geographic proximity make it a particularly popular destination for Nez Perce Tribal hunters. However, elk populations within the Clear Creek Watershed are currently constrained by poor forage conditions, high motorized road densities, and other environmental factors. Ensuring the continued availability of huntable populations of key treaty-reserved species, such as elk, on U.S. Forest System lands is a core treaty commitment of the United States.

The Tribe has spent the past 30 years attempting to improve the Forest's elk analysis. In 1989, just before the 1987 Nez Perce National Forest Land Management Resource Plan ("1987 Forest Plan"), the Tribe used the administrative appeal process to highlight deficiencies in the 1987 Forest Plan's elk habitat model, the "Legee guidelines," to the Forest's attention. As a result of the Tribe's appeal, the Tribe and Forest entered into a settlement agreement to remedy, in part, the Leege guidelines' inadequate elk vulnerability ("EV") component. The result was Amendment No. 7 to the 1987 Forest Plan and the eventual development by U.S. Forest Service, Idaho Department of Fish and Game ("IDFG"), and Tribal staff of the "Servheen guidelines."11 Since the Servheen guidelines were developed in 1997, the Tribe has urged the Forest to use newer science, including the more recent science developed by the U.S. Forest Service's own staff, alongside the required Servheen guidelines, in order to accurately model Project-related impacts to elk habitat.

The Forest originally declined to use the Servheen guidelines for this Project; instead, in violation of the 1987 Forest Plan, the Forest used the outdated Leege guidelines that the Tribe took issue with during its 1989 administrative appeal of the 1987 Forest Plan. Based on the Leege guidelines, the Forest repeatedly touted that Project-created elk forage would outweigh any loss in elk security occasioned by the Project. The Forest also insisted that the adverse impacts to elk from the Project would be temporary.

The Tribe responded by repeatedly pointing out to the Forest that forage is just one component of healthy elk habitat. The Tribe attempted to impress upon the Forest that they were not adequately considering existing conditions (high road densities) and the loss of cover caused by the Project in their analysis. The Tribe also told the Forest that any benefits for elk resulting from Project[shy] generated forage opportunities would likely be counteracted by the decreased security the Project would create.

Although the Forest agreed to use the Servheen guidelines in the 2018 draft Supplemental Environmental Impact Statement ("SEIS") for this Project, it failed to accurately assess elk habitat effectiveness ("EHE") or to calculate EV for the Project. The Forest also refused to use any newer science to assess Project impacts on elk.

Importance of the Watershed to the Tribe's Kooskia National Fish Hatchery

The Kooskia Hatchery, which sits at the bottom of the Clear Creek Watershed on the Nez Perce Reservation,

was federally authorized in 1961 to mitigate for the harm to anadromous salmon an

steelhead from water development activities in the Columbia River basin. The Hatchery was intended to produce two million spring Chinook salmon and one million steelhead.

The Hatchery's site on Clear Creek was selected by the U.S. Geological Survey ("USGS") following their investigation in 1962 of surface and groundwater supply, temperature, and turbidity at six prospective sites in the Clearwater River basin. The Kooskia Hatchery was built between 1966 and 1968 and production began in 1969. The Hatchery began releasing juvenile fish into the Middle Fork Clearwater River in 1973.

Since the Kooskia Hatchery began operating, it has relied on Clear Creek for 90% of the water it uses to rear fish; the other 10% of water comes from two ground wells on the Hatchery property. The Hatchery's current water diversion intake structure on Clear Creek is located one mile upstream of the main Hatchery facility.

Unfortunately, extensive timber harvest and other land uses in the Clear Creek Watershed between the 1960s and 1980s significantly degraded Clear Creek's water quality. As a result of these activities, Clear Creek's temperatures and sediment loads rose and the Kooskia Hatchery's fish production suffered. From the 1970s to the 1990s, a tractor was used to scoop dump truck loads of sand out of the rearing ponds, and the intake structure had to be cleaned out on a regular (sometimes weekly) basis to prevent the intake from clogging shut. The Hatchery's annual cost for this sediment removal was $10,000 to $14,000. Fish kills at Kooskia Hatchery were frequent in the 1980s due to Clear Creek's warm water temperatures and huge sediment loads, which routinely clogged the Hatchery's screens and raceways.

Although the Clear Creek Watershed has recovered to some degree from the intensive logging and development of previous decades, resulting in fewer big sediment blowout events, Clear Creek's temperatures and sediment loads are still too high for the Kooskia Hatchery to operate at full capacity-likely due in part to sediment delivery from the legacy haul road network in the Clear Creek Watershed.

To cope with Clear Creek's poor water quality, the U.S. Fish and Wildlife Service spent millions of dollars on a new intake system in Clear Creek in 2008-an Obermeyer weir-and on a chiller system. The U.S. Fish and Wildlife Service and the Tribe hoped that the Obermeyer weir would reduce the amount of sediment that flows into the Hatchery's ponds and water supply infrastructure and that the chiller system would help achieve water temperatures conducive to growing fish.

The Hatchery's intake structure diverts Clear Creek water into an underground pipeline that leads to a screen

chamber and settling structure. Inclined screens made of stainless steel wire mesh, with 3/8 inch square openings, remove small debris and fish from creek water before the water moves into the settling basin. High spring flows can cause debris, rocks, sand, and silt to block the intake entrance, preventing water from entering the intake structure and eventually reaching the Hatchery.

Recently, the Tribe's management practice at the Hatchery during the spring runoff has been to recirculate water within the Hatchery system and lower the Obermeyer weir, allowing stream debris to sluice past the intake structure. Hatchery personnel then manually check the intake structure twice daily to remove any debris that has accumulated. Even with the new Obermeyer weir and these sediment mitigation efforts, the Hatchery's screen chamber, which is 18' x 29' x 6', has to be cleaned out at least every six months to prevent sediment from reaching four feet high and blocking water flow to the Hatchery. Today, Hatchery personnel remove approximately 4,176 cubic feet of sand and sediment from the screen chamber annually. This equates to about eight large dump truck loads or nearly 700 wheelbarrow loads of sand/sediment.

If total blockage occurs, either at the Hatchery's water intake entrance or in its sediment settling structure, the Hatchery's fish will suffocate and die within a few hours. This is because the Hatchery's limited amount of well water is insufficient to support spring fish rearing and acclimation operations. If total blockage occurs, the Hatchery also does not have enough water to complete an emergency fish release by :flushing the fish out of the Hatchery into Clear Creek.

Between April 6-7, 2018, a heavy rain event occurred in the Clear Creek Watershed, triggering a flash flood and resultant landslide upstream of the Hatchery intake. The evening of April 7, the mud flow coming down Clear Creek blocked the Hatchery's water intake screens. Two staff members worked non-stop for several hours to try to keep water flowing into the Hatchery, before they had to call in help to accomplish an emergency release of all spring Chinook juveniles into Clear Creek to prevent them from suffocating within the Kooskia Hatchery.

In the 1980s, the Kooskia Hatchery joined the Dworshak National Fish Hatchery, the Idaho Fishery Resource Office, and the Idaho Fish Health Center to form the Dworshak Fisheries Complex. As a result, the Kooskia Hatchery and the Dworshak National Fish Hatchery share adult holding and spawning and juvenile production capacities. When the Dworshak Fisheries Complex was formed, the Kooskia Hatchery's production level was set at 800,000 spring Chinook salmon, 1.2 million fewer fish than the Kooskia Hatchery was originally built to produce. Due to the Kooskia Hatchery's ongoing water quality issues, however, its production goal was again reduced in the early 1990s to 650,000 spring Chinook salmon smolts. The Tribe also acclimates and releases approximately 600,000 coho salmon smolts from Kooskia Hatchery to implement a reintroduction program for coho salmon in the Clearwater River Basin.

The Kooskia Hatchery is critical to maintaining the Chinook and coho salmon fishery in Clear Creek and the Middle Fork Clearwater and to mitigating the impacts caused by water developments in the Columbia River Basin. The Tribe manages very important tribal fisheries for spring Chinook and coho in Clear Creek. The spring Chinook and coho trapped at the Kooskia Hatchery are also a very important broodstock source for the Clearwater Basin fish production programs. It is important to the Tribe and the Columbia River Basin that it

continues to operate, ideally at an increased capacity.

Importance of the Clear Creek Watershed to Listed Snake River Basin Steelhead

The Clear Creek Watershed also provides important spawning and rearing habitat for Snake River Basin steelhead, which are listed under the Endangered Species Act.

The status of Snake River Basin steelhead is currently dire. In 2019, NOAA Fisheries reported that the Early Warning Indicator has been triggered for Snake River Basin steelhead. This indicator[shy] developed by NOAA Fisheries in the Biological Opinion for the Columbia River Power System[shy] is based on fish abundances and trends and is a useful metric for determining when additional actions need to be taken to stave off the extinction of listed salmon and steelhead. The abundance aspect of the Early Warning Indicator is triggered when the four-year average abundance falls below 10,325 fish, and the trend aspect of the Early Warning Indicator is triggered when there is downward slope in abundance (based on five years of returns) that exceeds 90% of other five-year periods. In 2019, NOAA Fisheries found that the Early Warning Indicator had been triggered for Snake River steelhead due to a sharply declining five-year trend, ending with the 2018-2019 returns. The Tribe conducted a similar analysis ending with the 2019-20 returns, describing the trends of Snake River Basin steelhead populations (based on the last ten years of returns). The Tribe found that Snake River Basin steelhead were declining at a rate of 18% each year.

The Early Warning Indicator will likely be triggered again with this year's return, due to low abundances. Although a bump in returns occurred for 2020-2021, Snake River Basin steelhead returns for the current 2021-2022 run year into the Columbia River Basin (and hence the Snake River Basin) so far are the second lowest on record. It is very possible that the final count for this year's return will be very low, lower even than the 2018-2019 and 2019-2020 run years. As such, the Early Warning Indicator will also likely be triggered by declining abundance. This rate of decline and years of very low abundances-as low as when the fish were first listed under the Endangered Species Act-is cause for serious alarm.

Snake River steelhead were listed under the Endangered Species Act in 1997. NOAA Fisheries' Biological Opinion for the Project reports that "at the time of listing in 1997, the 5-year mean abundance for natural-origin steelhead passing Lower Granite Dam, which includes all but one population in the DPS [Distinct Population Segment], was 11,462 adults." As shown in the table above, two of the last three years are lower than that, and it will not be surprising if the 2021-2022 run is lower than this low average.

Although there are several causes for this population decline, including poor ocean conditions related to climate-change and hydropower development on the Columbia and Snake rivers, degraded natural spawning habitat due to land management activities is also a factor. This means that business should not be conducted as usual within the Snake River Basin. Rather, as NOAA Fisheries has stated, there should be greater focus under a changing climate on improving or expanding freshwater habitat. NOAA Fisheries has specifically recommended ramping up recovery efforts and identifying additional management actions. That said, the Tribe is unaware of any special management actions that the U.S. Forest Service or NOAA Fisheries have taken with respect to reducing land

management impacts on Snake River Basin steelhead, since the Early Warning Indicator was triggered. The Tribe believes this should change immediately, starting with the Project. The Forest and NOAA Fisheries should not simply carry on with what has been standard practice over the last two decades. Instead, they should be doing more to avoid impacts of management activities on steelhead habitat. Extra consideration and care is required now to protect these runs from going extinct.

Habitat protection is already recognized as a key tool for recovery of steelhead populations. Millions of dollars are spent annually-through efforts like the Bonneville Power Administration's and Northwest Power and Conservation Council's Fish and Wildlife Program and the NOAA Fisheries' Pacific Coastal Salmon Recovery Fund-to protect and restore steelhead habitat. Idaho Governor Little's Salmon Workgroup, as well as the Snake River Spring/Summer Chinook Salmon and Snake River Basin Steelhead Recovery Plan ("Recovery Plan"), describe the need to preserve and improve habitat in order to recover the species, especially in the face of climate change. The Recovery Plan recommends the following for Snake River Basin steelhead generally and for the Clearwater River Major Population Group specifically:

* Preserve, restore, or rehabilitate natural habitat-forming processes in areas with high suitability for steelhead by reestablishing riparian areas and reconnecting floodplains, and reducing surface runoff.
* Reduce and prevent sediment delivery to streams by improving road systems and rehabilitating mining sites.

The Recovery Plan's future water temperatures graphic shows that the Clearwater River Basin, and in particular the Basin's mountain areas like the headwaters of Clear Creek, will provide very important thermal refugia in a changing climate. According to the Recovery Plan, the strategy is to minimize in freshwater tributary habitat increases in summer temperatures by implementing measures to retain shade along stream channels and augment summer flow.

The Snake River Basin Steelhead recovery effort throughout this region, and, in fact, nationally, is currently focused on protecting and restoring steelhead habitat. This means that actions taken through land management that compromise or slow achievement of these goals are inconsistent with the regional and national habitat protection and improvement effort.

The Clear Creek watershed is a major spawning area for Snake River steelhead. As such, Forest management actions in the Clear Creek watershed should work toward this recovery goal for Endangered Species Act-listed steelhead; management actions there should not unnecessarily cause risk to the species or slow recovery efforts. Instead, management actions should minimize risk. Adopting a Project alternative that minimizes new road construction and road-derived sediment, and the risk of sediment delivery from unstable land types would be consistent with recovery efforts for Snake River Basin Steelhead recovery effort.

II. History of Tribe's Involvement with the Project

Due to the importance of the Clear Creek Watershed, the Tribe has been actively engaged in the Project review since 2012. The Tribe submitted comments on the Project's Draft Environmental Impact Statement on May 31,

2013. Thereafter, Tribal staff engaged with Forest staff on several occasions, and the Tribe participated in a Forest-led field trip and in government-to-government consultation prior to administratively Objecting to the Project on April 10, 2015.

After attending the Forest's Objection resolution meeting, Tribal staff met with Forest staff on July 9, 2015, and October 27, 2015, to discuss the Forest's updated evaluation of habitat improvement for natural spawning fish in the Project area (i.e., the Forest's upward trend analysis) and the Forest's road surveys respectively. The Tribe also sent U.S. Forest Chief Tidwell two (2) letters, dated July 30, 2015, and March 23, 2016, detailing its concerns with the Project and the Forest's reliance on the Tribe's restoration work to secure matching Collaborative Forest Landscape Restoration Program funds for the Project.24 The Tribe also sent Forest Supervisor Cheryl Probert a letter, dated October 27, 2015, regarding the need for an alternative water source for the Kooskia Hatchery prior to implementation of the Project. On February 22, 2016, Tribal staff met with Region 1 Forester Leanne Marten regarding its concerns related to the Forest's sediment modeling. Tribal staff then met with Forest staff on May 9, 2016, and May 24, 2016, to explain the errors it had found in the Forest's sediment modeling and to highlight the Tribe's overall concerns regarding sediment delivery to Project area streams and to the Kooskia Hatchery.

The Tribe's significant and outstanding concerns with flaws in the Project's analysis and the Project's effects on the Tribe's Treaty-reserved resources were not fully and satisfactorily addressed during the Forest's 2015 Objection period or thereafter, despite significant engagement by the Tribe with the U.S. Forest Service. Consequently, the Tribe filed suit against the U.S. Forest Service and NOAA Fisheries in the United States District Court for the District of Idaho on July 2, 2016. The Tribe's lawsuit requested that the Court enjoin the Forest from implementing the Project due to the failure by the Forest and NOAA Fisheries to: accurately and fully model and analyze the Project's total sediment production and delivery to Project area streams and the Project's impacts to elk; comply with the Forest Plan; and use the best available science. The Tribe asked the Court to enjoin the Project until the Forest had: accurately modeled the Project's total sediment production and impacts to elk and thoroughly analyzed and created viable mitigation plans to reduce impacts on natural spawning habitat, the Kooskia Hatchery, and elk habitat and populations; complied with the 1987 Forest Plan standards, including its annual monitoring and reporting requirements and its upward trend mandate for natural spawning fish habitat; and analyzed Project-related impacts to elk using a model and best available science with professional and scientific integrity. The Forest withdrew the Project Record of Decision on August 19, 2016, mooting the Tribe's lawsuit.

On March 24, 2017, the Forest published a notice of intent to prepare a Supplemental Environmental Impact Statement ("SEIS") for the Project. The intent of the SEIS, according to the Forest, was to prepare a "Draft SEIS to further review the project analysis, to correct and update information that was presented in the Final Environmental Impact Statement ("FEIS"), to consider information that has become available since the FEIS was published in September 2015, and to modify the FEIS's Alternative C based on technical reviews."

After the Forest announced that it would complete an SEIS, the Tribe and Forest negotiated and signed a Statement of Understanding ("SOU") to broadly "cooperate and communicate during the completion of the [Supplemental Environmental Impact Statement] analysis for the Project." The one-year SOU was signed by both parties in December 2017.

The SOU specified several specific issues for discussion. The Forest specifically committed itself "to working closely with the [Tribe's] staff to better understand and address the [Tribe's] concerns." The Forest also agreed to share specialist reports and make other reports, data, and analyses available to Tribal staff upon request and to install a multi-parameter instrument probe ("monitoring station") at the Forest boundary to measure temperature, turbidity, dissolved oxygen, pH, and conductivity. The purpose of the monitoring station was to enable the Forest and the Tribe to discuss and "compare sediment levels leaving the Forest and those levels reaching the Kooskia Hatchery, downstream of private lands. The probes are designed to measure temperature, turbidity, dissolved oxygen, pH, and conductivity at both sites."

The Tribe negotiated this language with the understanding that the Forest boundary monitoring station would collect sufficient data to help the Forest and Tribe resolve their disagreement concerning how much of the sediment occurring in Clear Creek at the Kooskia Hatchery's intake structure originates from the Forest and how much originates from the private land between the Forest boundary and the Hatchery.

The Tribe, for its part, specifically agreed in the SOU to "provide special expertise [and to] provide staff support to further the interdisciplinary nature of the [Project's] NEPA analysis." The Tribe and Forest both agreed to engage in frequent and transparent communication and promptly "resolve any concerns, misunderstandings, or disagreements" and to "cooperatively reassess, and possibly adjust the Project's design with [Tribal] staff, to promote increasing metrics for elk habitat security and overall quality."

Following execution of the SOU, the Forest and Tribal staff met on six (6) occasions in 2018. While Tribal and Forest staff were still implementing the SOU, however, the Forest released a Draft SEIS for the Project for a 45-day comment period on September 21, 2018. When the Draft SEIS was released, Forest and Tribal staff had not completed all discussions or completed all analyses contemplated by the SOU and had not reached agreement on several of the Tribe's concerns about the Project.

For the Draft SEIS, the Forest modified Alternative C to create Alternative C Modified by eliminating 187 acres within 10 of the 53 harvest units the Tribe recommended dropping during implementation of the SOU (19% of the Tribe's recommendation). The Forest did not redesign the Project's sediment mitigation measures. The Forest incorporated, without scientific rationale, additional design criteria for screening cover on specific units during timber sale layout to limit the visibility of big game from year-round motorized access points.

In comments on the Draft SEIS, the Tribe expressed appreciation that the Forest had made modifications to the Project, presented through Alternative C Modified, but notified the Forest that Alternative C Modified did not sufficiently protect or enhance degraded watershed conditions, the Kooskia Hatchery, or wildlife habitat security. The Tribe then urged the Responsible Official to modify and select Alternative D. The Tribe requested that Alternative D Modified, at minimum, exclude the high risk harvest units excluded from Alternative C Modified and include scientifically-informed design criteria to enhance elk security in the Project area.

The Forest shared a copy of its FSEIS and DROD with the Tribe on May 24, 2019. The Forest had not addressed all of the concerns the Tribe raised in its comments. Thereafter, the Forest ran the NEZSED sediment model for Alternative C Modified and continued refining the FSEIS and DROD in 2020.

The Forest again provided drafts of the DROD and FSEIS to Tribal staff on June 7 and 9, 2021, respectively, in preparation for the Tribe's June 22, 2021, government-to-government consultation with the Forest and prior to its anticipated public release on July 8, 2021, for a 45-day administrative Objection period.

III. Additional Project Analyses, 2016-2021

Forest and Tribal staff completed additional environmental analyses of the Project between 2016 and the release of the FSEIS this summer. The Tribe is grateful to the Forest for its willingness to complete these analyses in discussion with Tribal staff. An overview of the completed additional analyses follows.

Completed Sediment Analyses

Harvest Unit Analysis

Tribal staff completed an independent, unit-by-unit sediment analysis of the Forest's proposed harvest units, under Alternative C. The purpose of the Tribe's analysis was to determine which of the Forest's proposed harvest units had the highest likelihood of delivering sediment to Project area streams. For its analysis, Tribal staff referenced Cristan et al. 2015, which notes that U.S. Forest Service roads, skid trails, and stream crossings have the greatest potential for erosion and sediment delivery to streams. As a result, Tribal staff carefully considered all roads, skid trails, and stream crossings in the Project area. Tribal staff also looked, however, at road densities, landslide prone ratings, Equivalent Clearcut Area ratings, the health of prescription watersheds, FISHSED ratings, and Geo-spatial Watershed Erosion Prediction Project ("GeoWEPP")-modeled sediment delivery within the Project area. As a result of their analysis, Tribal staff recommended to the Forest, in a letter on March 7, 2018, that the Forest eliminate or modify 53 Project harvest units, totalling at least 946 acres, in order to reduce the likelihood of sediment delivery to Project area streams. Tribal staff concluded that 39 of the 53 units had predicted surface erosion values above the Project average. Tribal staff concluded that the remaining 14 units would have increased water yield or had road density or hillslope stability issues.

To create Alternative C Modified, the Forest dropped 187 acres, in ten of the harvest units the Tribe recommended dropping. It is not clear why or how the Forest identified the 187 acres they decided to drop; the 187 acres the Forest dropped have the same risk factors as the other 759 acres the Tribe recommended dropping.

Upward Trend

On March 7, 2018, Tribal staff recommended in a letter to the Forest's Environmental Coordinator, Zoanne Anderson, that the Forest update its upward trend table to include habitat conditions in Riparian Habitat Conservation Areas and upland areas and that the Forest include water quality objectives in its upward trend determinations. The Tribe's letter also suggested that the Forest use the Tribe's included upward trend table template, which used a scale factor to weigh indicators in each prescription watershed. The Tribe made these requests and suggestions partly because the Forest's upward trend tables give its most impactful harvest treatments the same weight as its watershed improvement activities. In other words, the Forest's upward trend tables give as much positive weight to the effect of restoration activities on aquatic systems as they give negative weight to timber harvest and road construction on aquatic systems, even though restoration activities rarely fully mitigate the negative effects of timber harvest and road construction. The Forest still has not adjusted the scaling in its upward trend tables.

Further staff-to-staff discussion occurred on July 13, 2018, about the Watershed Improvement Tracking database ("WIT") and the tracking of decommissioned roads. Since that discussion, the Forest shared the WIT database with tribal staff.

GRAIP

The Tribe recommended in 2018 that the Forest use road models, such as the Geomorphic Road Analysis and Inventory ("GRAIP") model, in order to perform a robust analysis of sediment[shy] delivery from roads within the Project area. In 2019, after the SOU expired, the Forest completed a Geomorphic Road Analysis and Inventory Package ("GRAIP") survey on all U.S. Forest Service system roads within the Hoodoo prescription watershed in the Project area and modeled the results.

WEPP

The Tribe requested that the Forest run the Watershed Erosion Predictably Project ("WEPP") model, and specifically GeoWEPP, in additional to the Forest's NEZSED model, for the Project to provide an updated and best-available-science estimate of sediment delivery from harvest units in the Project area. The U.S. Forest Service's Rocky Mountain Research Station completed model runs for GeoWEPP, with the FlamMap model, and WEPP:Road for the Project and submitted final reports to the Forest on January 6, 2017, and October 24, 2018.

NEZSED model outputs are only intended to be used to compare project alternatives, whereas GeoWEPP model outputs can be used to compare harvest unit sediment delivery. The GeoWEPP model estimates sediment delivery from harvest units based on harvest type (e.g. skyline or ground). The GeoWEPP tool, when combined with outputs from the FlamMap model, can also estimate sediment associated with potential post fire conditions. FlamMap model outputs estimate severity of wildfire within a watershed, and can compare managed vs. unmanaged conditions. The WEPP:Road model estimates road sediment delivery to streams, road segment-by-

segment.

The Rocky Mountain Research Station's January 6, 2017, WEPP report compared the outputs and methodology of the NEZSED model and the GeoWEPP and WEPP:Road models and found demonstrated similarities in the erosion estimates. The 2017 report stated: "The study confirmed that the erosion estimates made using the NEZSED technology are similar to those using the WEPP technology, even though the two (2) technologies use very different methods." The Forest shared the results of the GeoWEPP, FlamMap, and WEPP:Road model results with Tribal staff.

Completed Elk Analyses

The Tribe asked the Forest to: 1) at a minimum, incorporate in the Projects analyses the analytical framework described in Servheen, including the EHE and EV models; 2) incorporate into the Project analyses the best available scientific information regarding motorized disturbance, forage conditions, livestock grazing, and other factors; 3) identify and incorporate into the Project analyses monitoring data relevant to the Project area an specific to both elk and other wildlife species; and 4) incorporate into the Project design criteria the results of the aforementioned analysis to minimize deleterious impacts to elk. The Forest updated the EHE and EV analyses using the Servheen guidelines in the FSEIS. The Forest considered and referenced recent literature regarding elk habitat security and selection, human disturbance, fuels and silvicultural prescriptions, interactions with livestock, and nutritional impacts (only forage quantity), but did not incorporate them into the assessment of impacts. The Forest summarized a number of monitoring reports and research developed by partner organizations and researchers in the FSEIS. This information supplements existing analyses contained in the FEIS and provides important context for the Project's proposed actions.

1.
IncompleteProject Analyses

Several of the analyses the Forest and Tribe agreed to conduct in the SOU were never completed, leaving analysis of the Project's total effects incomplete. The following SOU sections remain unaddressed and/or unresolved:

D.l. The parties agree to ... work together to identify stream locations at the highest risk of sediment delivery from Project activities.

D.1.c. Cooperatively reassess, and possibly redesign, the sediment mitigation measures needed for Project implementation using best available science, including locally-derived information incorporating the Idaho Batholith sediment type (if any). The Forest will continue to use designated national Best Management Practices

during Project implementation.

Tribal and Forest staff only discussed sediment delivery at the prescription watershed scale (relying on the Forest's NEZSED model), not by stream reaches because the Forest had limited data at this scale. The Forest also never told Tribal staff how much of the sediment produced by the Project would be delivered to Project area streams, despite the fact that the Forest could have modeled sediment delivery to streams when it ran the GeoWEPP and WEPP:Road models. As a result, the Parties were not able to jointly identify stream locations with a high risk of sediment delivery from Project activities.

Tribal and Forest staff discussed the Project's sediment design criteria once briefly; during this discussion, the Forest's Central Zone Fish Biologist stated that no Project-related sediment is expected to reach Project-area streams because of the Project's RHCA buffers. This statement is unsupported by data or science. Tribal staff did not agree.

D.2. Sediment Downstream of Forest Boundary: The Forest agrees, as appropriations permit, to install the already purchased two multi[shy] parameter instrument probes, one at the Forest boundary and the other at the Kooskia Hatchery. The [Tribe] has already installed a USGS monitoring station at the Kooskia Hatchery. The Forest and the [Tribe] will discuss whether the data are comparable. The intent is to compare sediment levels leaving the Forest and those levels reaching the Kooskia Hatchery, downstream of private lands. The probes are designed to measure temperature, turbidity, dissolved oxygen, pH, and conductivity at both sites. An integrated telemetry and satellite system can provide real-time data if purchased in the future.

The purpose of installing this monitoring station was to allow Tribal and Forest staff to conduct a data-driven discussion and analysis of actual sediment impacts to the Kooskia Hatchery for the purpose of resolving disagreements regarding Project design and for both parties to gain a better understanding of water quality conditions within Clear Creek.

The Forest, in coordination with the USGS, did not install the agreed-to monitoring station near the Forest boundary until December 4, 2019. The monitoring station began recording turbidity data in January 2020. The Tribe did not learn until July 2, 2021, however, that the monitoring station is only collecting turbidity data. The Tribe was surprised and dismayed to learn this because the Forest agreed in the SOU to install a monitoring station that collects temperature, dissolved oxygen, pH, and conductivity data and the Tribe had been privy to very clear communications from U.S. Fish and Wildlife to Forest staff that the gage was intended to be a turbidity and temperature monitoring station. The Tribe also takes note that the Project FSEIS states: "Stream temperature and turbidity monitoring will occur in coordination with the USGS. A cableway and monitoring sonde will be installed and data collected from April through October for a minimum of 5 years."

The Forest's monitoring station at the Forest boundary needs to collect three (3) years of monitoring data before its data and the data derived from the Kooskia Hatchery's monitoring station (which collects turbidity, stream flow, temperature, and suspended sediment data) can be usefully compared by the USGS and before a trend can accurately be derived for any parameters. This means that three (3) years of data are needed before the Tribe

and Forest can accurately determine what percentage of sediment that reaches the Forest boundary also reaches the Kooskia Hatchery. According to the Forest's schedule the Lost Mule Timber Sale will be underway in three

(3) years.

D.3.b. Forest and NPT technical staff will jointly review the extent to which the Forest's analyses appropriately incorporate the best scientific information and methodologies. The results of the analyses described above will be provided to NPT staff in a timely manner (approximately two weeks prior to making them available to the public) so that parties can meet and discuss said results.

The Forest sent Tribal staff an updated draft of the elk analysis report on January 23, 2018. Tribal staff met with the Forest on February 8, 2018, and provided a written review of the report to the Forest on March 16, 2018. Tribal staff commented that the Forest's literature review of best available science was not sufficiently used by Forest personnel in their actual analysis of alternatives. Tribal staff provided suggestions to the Forest on how to use the best available science to compare the Project's alternatives with regard to the effect of road and harvest treatments on elk. However, Tribal staff did not have the opportunity to discuss their suggestions with Forest staff.

D.3.c. The parties will review and evaluate existing Nez Perce National Forest Plan wildlife monitoring data and reports pertaining to the Project analysis.

The Forest gave Tribal staff a list of the types of monitoring that occur on the Forest. No Forest Plan monitoring efforts have occurred within the Project area, and limited monitoring efforts in other areas of the Forest have not been summarized in any recent Forest Plan monitoring reports, since 2004. A lack of Forest Plan monitoring continues to hinder meaningful evaluation of this Project by the Forest and Tribal staff. In the FSEIS, the Forest summarized a number of monitoring reports and research developed by partner organizations and researchers. This information supplements existing analyses contained in the FEIS and provides important context for the proposed actions. The Tribe appreciates the Forest's effort to gather and synthesize this information across several Sensitive and Management Indicator Species. Unfortunately, the Forest has long relied on IDFG, non-governmental organizations, and other partners to monitor wildlife populations as required by the Forest Plan. The scale at which these entities gather such data appears to severely limit the utility of that information in the evaluation of project-level impacts, even at the relatively large spatial scale of the Project. As a result, the FEIS and FSEIS rely on dated survey efforts, often at inappropriately coarse or distant spatial scales, for many species of concern, including elk. A more robust and effective monitoring framework is needed at the Forest Plan level to ensure NEPA analyses such as this are sufficiently detailed.

D.3.d.The parties will meet to discuss the possible need for implementation and/or effectiveness monitoring of design features to address potential impacts to elk and elk habitat identified in the Project. This discussion will occur prior to the Project's Record of Decision. This discussion will include how information could be collected, analyzed, and used. This does not commit funds or personnel for monitoring.

Tribal staff were not able to discuss the possible need for implementation and/or effectiveness monitoring of design features to address potential impacts to elk and elk habitat because the Forest failed to provide an updated, science-based analysis of impacts to elk. And, without long-term condition and trend data, the Forest cannot assert that the Project's actions will increase elk numbers or habitat conditions.

Tribal staff did meet with Forest staff on July 29, 2019, to address implementation and/or effectiveness monitoring of wildlife design criteria, including those specific to elk. Tribal staff asked the Forest to monitor the implementation and effectiveness of the Project's wildlife design criteria. The Forest did not fully agree, and Tribal staff left the meeting with the understanding that the Forest intends to devote most or all of its project-level monitoring time and resources to timber contract administration, not to wildlife effectiveness monitoring. This was deeply disappointing.

After years of reviewing and commenting on the Forest' s projects, Tribal staff have learned that the Forest is not monitoring basic project design criteria that they are required to do under the 1987 Forest Plan and signed projects. For instance, it has come to staff's attention that some projects' harvest unit boundaries may be considerably different than what was planned and analyzed under NEPA. Staff also cannot find documentation since 2004 that important wildlife protections, like retention of snags or yew stands for moose are actually occurring and whether or not they are effective. If the Forest's basic planning assumptions are never monitored and analyzed, it is impossible for the Forest or anyone else to vet their assumptions or determine the true environmental impact of project design.

D.3.e. The parties will cooperatively reassess, and possibly adjust the Project's design with [Tribal] staff, to promote increasing metrics for elk habitat security and overall quality.

Tribal staff met with the Forest for an informal unit-by-unit assessment on May 11, 2018. Tribal staff were hampered in their ability to provide meaningful feedback to the Forest regarding needed changes to the Project design at the meeting, however, because Tribal staff continued to believe the Forest's EV calculations were inaccurate and the Forest had not provided Tribal staff with an updated elk analysis report. As a result, Tribal staff were unable to provide the Forest with scientifically-informed, unit-by-unit recommendations at the May 11, 2018, meeting. Kerey Bamowe-Meyer, a Tribal Wildlife Biologist, clearly communicated this fact to Forest District Ranger Jennifer Blake and other Forest staff members present at the meeting and in an email sent June 1, 2018. Tribal staff also made it clear at the meeting that the units collectively identified at the meeting as possibly requiring design adjustments were identified in a very preliminary manner and should not be relied on. Rather, Tribal staff told Forest staff that they should complete the robust, science-based analysis of impacts to elk that the Tribe had been requesting for several years. The Forest has not completed these requested analyses. Consequently, neither the Forest nor Tribal staff could be sure how the Project design should be altered to increase elk security.

V. Tribe's Resource Concerns with Updated Project Fish

When the Project was proposed, the Tribe was deeply concerned that it would deliver too much sediment to natural fish spawning habitat within the Project area and to the Kooskia Hatchery. The Tribe was concerned because the habitat conditions within the Project area were already degraded and fish operations at the Kooskia Hatchery were already impaired by sediment loads in Clear Creek. Although the Forest's updated NEZSED modeling for Alternative C Modified in 2020, showed that the tons of sediment the Project will deliver to the Project area's prescription watersheds has decreased from Alternative C, and is within Forest Plan guidelines, the predicted sediment delivery may still be, in real terms, too much for fish habitat and the Kooskia Hatchery. For instance, based on our calculations, the Forest predicts that the Upper Clear Creek, South Fork Clear Creek subwatersheds, and Hoodoo prescription watersheds will receive 110 tons of sediment from Project activities. This is a concerning amount of sediment whether the amount is under the Forest Plan sediment yield prescription watershed guidelines or not.

Snake River Basin steelhead populations are currently experiencing steep declines and will be faced with additional impacts from climate change over the life of this Project. These fish rely on Clear Creek Watershed habitat for spawning and rearing and additional sediment will inevitably degrade this habitat. Given the fragile state of the Snake River Basin steelhead population, Project[shy] related sediment delivery to streams in the Project area should be reduced further.

Furthermore, the Tribe believes that some percentage of sediment delivered by the Project to each prescription watershed will reach the Kooskia Hatchery. This belief is confirmed by the one (1) year of data reported by USGS from the monitoring station in Clear Creek at the Forest boundary. This data shows that there is a correlation between peak sediment loads at the Forest boundary and at the Hatchery (See Figure 3 below).

While there may be additional sediment contributions from tributaries on private land between the Forest boundary and Hatchery, the lateral confinement of mainstem Clear Creek downstream of the Forest boundary essentially functions as a transport reach, delivering sediment from the Forest boundary downstream to the Hatchery. This means that some percentage of 110 tons of additional sediment delivered to the Upper Clear Creek, South Fork Clear Creek, and Hoodoo prescription watershed streams will hit the Kooskia Hatchery's intake (and this doesn't factor in Project-related sediment delivery to the other five (5) prescription watersheds). This will further impair the Hatchery's already sediment impaired operations.

There is also still the very real possibility that the Project will deliver more sediment to fish habitat and the Hatchery than the Forest's models predict. No model perfectly predicts actual events on the landscape, even when it accounts for all exigencies. And, the Forest's sediment models do not; they do not take into account mass wasting events, which are inevitable events that will affect both natural habitat and the Kooskia Hatchery.

Elk

At Project's inception, the Tribe voiced concerns that the proposed Project would degrade elk habitat security,

thereby negatively impacting elk populations in the Clear Creek Watershed. The Tribe originally asked the Forest to incorporate the Servheen guidelines as required by the Forest Plan, incorporate the best available scientific information regarding motorized disturbance, forage conditions, livestock grazing and other factors into the analyses, identify and incorporate monitoring data relevant to the Project, and incorporate design criteria to minimize adverse

impacts to elk. Since 2015, the Forest has updated its EHE and EV analyse s using the Servheen guidelines; the Forest considered and referenced a number of recent scientific studies on elk in the FSEIS; the Forest proposed adding additional screening in harvest units along some Project area roads during timber sale layout; and the Forest added the Upland Implementation Monitoring for Wildlife Design Criteria to the DROD. Unfortunately, however, these updates do not fully address and do not resolve the Tribe's fundamental concerns regarding elk in the Project area. The Forest did not accurately execute the Servheen guidelines. The Forest did not incorporate the best available scientific information regarding motorized disturbance, forage conditions, livestock grazing, and other factors in the Project analyses. The Forest did not conduct a science-based evaluation of units and roads in relation to elk habitat. The incomplete use of science, inaccurate application of the Servheen guidelines, and lack of a science-based assessment of units prevents the Tribe and the public from obtaining a good understanding of the Project's overall impacts to elk and impedes the Forest's ability to make substantive changes to the Project to minimize impacts.

The Tribe agrees with the Forest that there is a need for some timber harvest within the Clear Creek Watershed. However, the Tribe continues to believe that active management should not unnecessarily cause additional risk to or slow recovery efforts for vital fisheries and should meaningfully improve elk security within the Project area.

VI. Tribe's Specific Objections to the Project and Suggested Remedies NEPA - Failureto Take a "Hard Look"

Agencies are required to take a "hard look" at the probable environmental consequences of any

proposed action. "To take the required 'hard look' at a proposed project's effects, an agency may not rely on incorrect assumptions or data in an EIS." Rather, an agency has taken a "hard look" at an action's potential environmental consequences when an "EIS's form, content and preparation foster both informed decision-making and informed public participation." As part of their "hard look," agencies must consider all foreseeable direct, indirect, and cumulative environmental impacts from the proposed action and must not inappropriately minimize negative side effects. With regard to cumulative impacts, an EIS must look at the combined environmental effects of past, present, and future projects, along with the proposed project, in sufficient detail to enable the decision-maker to alter the proposed project to lessen its cumulative impacts. An adequate analysis of cumulative impacts must also contain "some quantified or detailed information ."

Failure to Fully Analyze Cumulative Impacts on Snake River Basin Steelhead

The Forest failed to take a hard look at the cumulative impact of the Project on Endangered Species Act-listed Snake River Basin steelhead.

The Snake River Basin steelhead Distinct Population Segment (DPS) has declined tremendously since 2014 and are in trouble. Their abundance for three of the last four years are lower than the average five-year period when they were first listed in 1997 under the Endangered Species Act, and this year's return (for the 2021-2022 run year) is currently the second lowest on record (1943 is the lowest). In 2019, NOAA Fisheries measured their five-year rate of decline at greater than 90% of any other five-year period. The Tribe estimates the rate of decline for each of the last ten years is 18% per year.

Since Snake River Basin steelhead were listed, the Forest has embarked on an aggressive timber harvest program. As the table and graph below show, the Forest's timber harvest activity has increased by over 200% since 2001.

Not only has timber volume on the Forest substantially increased since Snake River Basin steelhead were listed, but the total acres of timber harvest has dramatically increased as well. The Forest now routinely completes timber projects that are larger than 30,000 acres, with timber volumes in excess of 50 million board feet. This recent era of intensive timber management on the Forest can't help but come with significant environmental effects. Although the Tribe does not have the monitoring reports describing aquatic effects for this time period (including comprehensive sediment delivery data from the Forest's harvest units and haul roads), the Tribe can safely assume, based on the data it does have and common sense, that sediment delivery to waterways on the Forest has increased over the last two decades, degrading fish habitat.

As described in the Project's Biological Opinion, there are five Major Population Groups (MPGs) that comprise the River Basin steelhead DPS. The health of each MPG is important to the health of Snake River Basin DPS as a whole. Four of the five MPGs that comprise the Snake River Basin steelhead population are not meeting viability objectives, including the Clearwater River MPG, a subpopulation of which exists in the Project area.

The Clearwater River MPG is comprised of five existing populations-the Lower Mainstem Clearwater River, South Fork Clearwater River, Lolo Creek, Selway River, and Lochsa River populations. The vast majority of the critical habitat for four of those populations-the South Fork Clearwater, Lola Creek, Selway River, and Lochsa River-lies within the Forest. The Lower Mainstem Clearwater Population is not located primarily within the Forest. However, the steelhead returning to Clear Creek (defined as a "major spawning area" of the Lower Mainstem Clearwater River population), do return, spawn, and rear primarily within the Forest boundaries.

Consequently, the Forest's timber management activities constitute the lion's share of human[shy] caused impacts facing four of the Clearwater River populations during their freshwater rearing period in their natal streams. The same can also be said for the Clear Creek subpopulation, for which the Clear Creek Watershed is a major spawning area.

A significant portion of the habitat for the Clearwater River MPG lies within the Forest's roaded front country

where harvest management has increased significantly (by 200%) since Snake River Basin steelhead were listed in 1997. Thus, although much of the Forest is Wilderness with protected fish habitat, habitat quality and capacity for the Clearwater River MPG as a whole is being directly affected by the Forest's intensive timber management. Despite this obvious fact, the Tribe has not seen any analysis from the Forest or NOAA Fisheries that attempts to assess or quantify the precise impact the Forest's significant increase in timber volume over the past two decades on the Clearwater River MPG, specifically, and the Snake River Basin steelhead DPS, more generally. The Tribe also has not detected a change in either agency's approach to protecting the Clearwater River MPG's habitat on the Forest.

The Forest and NOAA Fisheries have, to date, essentially confined their analysis to whether the Clear Creek Project's effects alone will jeopardize the continued existence of Snake River Basin steelhead or result in the destruction or adverse modification of designated critical habitat for Snake River Basin steelhead, without considering cumulative effects of two decades of intensive timber management by the Forest on the Clearwater MPG. The Forest and NOAA Fisheries have, therefore, failed to take a hard look at the Project's true additive impact on Snake River Basin steelhead and have exposed the Clearwater MPG to the possibility of death by 1,000 cuts. Given the dire state of the Snake River Steelhead DPS, each impact on its Major Population Groups, Populations, and major (and minor) spawning areas must be carefully scrutinized, and all natal habitat must be equally vigorously protected. The precipitous decline of the Snake River Basin steelhead is a region-wide issue and must be addressed and arrested in every comer of the region.

Given the overwhelming importance of Forest habitat for the Clearwater River MPG, the Forest and NOAA Fisheries should take the required hard look at the cumulative effects of the Project and Forest-wide actions over the last two (2) decades on Snake River Basin steelhead. And, given the truly significant recent declines in Snake River Basin steelhead, the Forest and NOAA Fisheries should also robustly apply the precautionary principle to Forest management in the Clear Creek Watershed and throughout the Forest.

Suggested Remedy

The Forest should update its cumulative effects analysis in the FSEIS to adequately consider the Project's effect on Snake River Basin steelhead in light of the Forest's intensive and increasing timber management on the entire Forest since Snake River Basin steelhead were listed in 1997.The Forest should reinitiate consultation with NOAA Fisheries pursuant to section 7 of the Endangered Species Act55 due to the Forest's failure to adequately consider the new information demonstrating the ongoing decline in the Snake River Basin steelhead Distinct Population Segment when assessing the Project's cumulative effects on the Distinct Population Segment.

The Tribe suggests that the Forest, based on its updated cumulative effect analysis, adjust the Project design to further minimize the Project's sediment production and temperature and habitat alterations. The Forest may be able to accomplish this by selecting Alternative D Modified.

Failure to Analyze Stream Temperature Effects

The Forest failed to take the requisite hard look at stream temperature impacts on ESA-listed juvenile steelhead or Essential Fish Habitat for Chinook and coho salmon in the Project area.

As mentioned previously in meetings with Forest staff, and formally in the Tribe's April 10, 2015, Objection to the Forest's FEIS to the Project, surface water temperature and flow in Clear Creek are vitally important to the native and hatchery fish survival. Elevated temperatures would have an adverse effect on local fish populations in the Clear Creek Watershed.

The FSEIS only reports on temperatures in the Clear Creek Watershed up to 2016. In 2016, it was clear that summer stream temperatures below the Forest boundary were nearing upper temperature limits for salmonids. And temperatures are only projected to increase as a result of climate change.

The following table shows upper optimal temperature criteria for salmonids.

The FSEIS and associated Fisheries Biological Assessment does not analyze the effects of temperatures in the Clear Creek watershed on Essential Fish Habitat and does not consider the potential migration issues current temperatures may pose for adult or juvenile fish. Rather, the Forest's Biological Assessment states that the average seven (7)-day maximum measured in 2015 at the Forest boundary was 20[deg]C and that "(o]ptimal stream temperatures for juvenile Chinook salmon and steelhead trout rearing is l 4- l 9[deg]C. Lethal temperatures for juveniles occur if they constantly exceed 21-23[deg]C for one (1) week or longer."

The BA does cite the 2003 EPA Region Guidance for Salmonid temperature. The EPA Summary of Temperature Considerations cites 18-20[deg]C as high for disease risk and a rearing preference at 10-l 7[deg]C for juvenile salmon and trout. This EPA guidance and the Forest's assessment of temperature in the BA concludes that temperatures in Clear Creek are generally too high in July, August, and early September for bull trout.

The Forest is already exceeding optimal conditions for Endangered Species Act-listed Snake River Basin steelhead and bull trout and for Chinook salmon and coho Essential Fish Habitat.

Recorded temperatures in Clear Creek in early July 2021 at the Kooskia Hatchery reached a high of 27[deg]C. Temperatures this high in lower Clear Creek could create a thermal barrier to migrating salmonids, affecting the long-term viability of the population. It is important to monitor Clear Creek's temperature as it leaves the Forest boundary in order to determine to what extent conditions on the Forest contribute to elevated temperatures downstream, and to assess Project impacts.

.

In 2015, Stillwater Sciences installed air and water temperature loggers at several locations (in Clear Creek and West Fork Clear Creek) for Forest staff to monitor and download. The Forest measured stream discharge in 2015 and 2016 at the lower mainstem Clear Creek and West Fork temperature loggers, but has produced no additional reports. The SFEIS reported stream temperatures results throughout Clear Creek and its tributaries between 1991 and 2016. The monitoring report does have temperature data from the summer of 2015 through August 2016. After the 2016 summer, the deployed temperature loggers were removed by Stillwater Sciences and delivered to the Forest No more recent temperature data is reported in the FSEIS, indicating that the Forest is not currently collecting temperature data as stated in the FSEIS monitoring plan.

The Forest has failed to use the data available to take a hard look at baseline temperatures in the Clear Creek Watershed and at the Project's temperature effects on ESA-listed juvenile steelhead or Essential Fish Habitat for Chinook salmon and coho in and downstream of the Project area.

Suggested Remedy:

The Forest should provide a more complete temperature profile for the Clear Creek Watershed to establish baseline temperature conditions before Project implementation. The Forest should also take a hard look at the effects of the Project on stream temperature within and below the Project area, in light of climate change. Part of this hard look should entail reporting and analyzing continuous temperature data since 2016. This analysis should include stream temperatures during

summer low flows as differences in temperature changes may be the result of either local management activities or changes in regional climate patterns.If necessary, based on this analysis, the Forest should make changes to the Project design to ensure stream temperatures

remain suitable for salmonids, especially listed Snake River Basin steelhead, within in the Project area during and after Project implementation and to forestall the development of lethal conditions or a thermal barrier in lower Clear Creek, which could restrict salmonid movement into the Clear Creek Watershed

The Forest should ensure that its monitoring station at the Forest boundary is collecting and reporting temperature data, as it agreed to in the SOU with the Tribe. In the future, the Forest should use this additional temperature data to analyze whether water temperatures leaving the Forest change during Project implementation and to monitor correlations between stream temperatures and effects on listed Snake River Basin steelhead, both within the Project area and downstream.

Failure to Fully Analyze Impacts to Elk

The Forest has failed to take a hard look at the Project's effects on elk.

The Tribe acknowledges and appreciates that since the Forest published the 2015 FEIS for the Project, the Forest has updated its EHE and EV analyses using the Servheen guidelines, as requested (at a minimum) by the Tribe. The Tribe also acknowledges that the Forest summarized and considered recent literature. However, the Forest's updated assessment using the Servheen guidelines in the FSEIS is fraught with errors, and the Forest failed to incorporate any new science into its analysis or use the results to adjust the Project to promote increasing metrics for elk security and overall habitat quality.

The Tribe has spent the past 30 years attempting to improve the Forest's elk analysis, so it is deeply troubling that the Forest failed to fully and accurately implement the Servheen guidelines. In 1989, just before the 1987 Forest Plan, the Tribe used the administrative appeal process to highlight deficiencies in the Legee guidelines, to the Forest's attention. As a result of the Tribe's appeal, the Tribe and Forest entered into a settlement agreement to remedy, in part, the Leege guidelines' inadequate EV component. The result was Amendment No. 7 to the 1987 Forest Plan and the eventual development by U.S. Forest Service, IDFG, and Tribal staff of the Servheen guidelines. Since the Servheen guidelines were developed in 1997, the Tribe has urged the Forest to use newer science, including the more recent science developed by the U.S. Forest Service's own staff, alongside the required Servheen guidelines, in order to accurately model Project-related impacts to elk habitat.

)

Studies since Servheen have greatly expanded wildlife biologists' understanding of the direct and indirect effects of roads, motorized use, nutrition, livestock grazing, and other factors on the distribution and health of elk and elk habitats. The FSEIS includes a summary of recent scientific studies on elk, yet little of the information or recommendations contained therein are used to evaluate or amend the Project itself. The Tribe notes the Forest's willingness to embrace management using the best available science in the context of forest old-growth definitions and delineation of fisher habitat and encourages the Forest to do so in this context as well. Even if the Forest had completed the Servheen guidelines correctly, it would still need to embrace more recent science in its discussion of impacts to elk to ensure it has an accurate understanding of Project impacts on elk. General information about elk and descriptions of how motorized routes or availability and quality of forage impact elk provide little value when this information is not used to interpret the existing conditions and evaluate proposed treatments. Tribal staff provided feedback to the Forest on its elk analysis in 2019, while the Forest was developing it for the FSEIS and DROD and gave the Forest detailed recommendations on how to improve its assessment using more recent science. Unfortunately, the Forest rejected all recent scientific studies on the

effects of motorized disturbance (specifically, Rowland et al. 2005 and Ranglack et al. 2017 on elk, stating that such studies were uninformative and irrelevant to the habitat and road densities found on the Forest. Instead, the Forest states that literature relevant to the Forest includes Christensen et al. 1993 and Hillis et al. 1991 for evaluating elk security and the Servheen guidelines for evaluating summer range with respect to open road density, livestock grazing, cover-forage ratios, and security areas.

The Tribe has major concerns with the Forest's reasoning.

One, the Forest is choosing to ignore the wider implications from the Rowland et al. and Ranglack et al. studies, that it is the spatial arrangement of the motorized road network (not solely road density) coupled with the amount and distribution of cover and forage areas that can impact elk security and habitat effectiveness. The Forest has also acknowledged and recognized that using road densities alone as the Servheen and Leege guidelines do, is not a good indicator for assessing vulnerability and security and that the spatial arrangement and type and duration of disturbance in conjunction with habitat condition and type are what matter. Better approaches and a number of peer-reviewed studies have been developed since the Servheen guidelines were published in 1997. Many of these studies have been conducted and published by the U.S. Forest Service research staff located at the Starkey Experimental Forest and Range near La Grande, Oregon. As a result of this research, a number of important management concerns and analysis considerations have been identified since 1997 that are relevant to the Clear Creek Project.

On the basis of some of these studies, the U.S. Forest Service itself developed an updated method to evaluate EV as part of its internal forest plan revision process in August 2006. The U.S. Forest Service's 2006 Evaluation Report-Terrestrial Wildlife Habitat document ("Evaluation Report") uses peer-reviewed literature from 1991-2005 (Hillis et al. 1991, Gaines et al. 2003, Servheen et al. 2003, and Rowland et al. 2005) to develop an updated analytical tool superior to that contained in the Servheen guidelines. The Evaluation Report also re-mapped elk winter range across the Forest, information that the Forest chose to use and cite in the Clear Creek Project FEIS.77 The Evaluation Report acknowledges well-documented concerns associated with using only road densities, the metric used by both the EHE and EV models contained in the Servheen guidelines, to evaluate the impact of roads on elk habitat. As recommended by recent research, the Evaluation Report instead makes use of a distance-banding approach that accounts for the spatial configuration of motorized routes and the avoidance of those routes by elk. The updated analytic tool included an elk security map that ranked habitat security within each subwatershed across the Forest. Despite this previous effort by the Forest, the Forest has dismissed here the Rowland et al. and Ranglack et al. studies that elaborate on the distance-banding approach on the basis that they were conducted on landscapes with differing road densities and canopy cover. Instead, the Forest claims, without any scientific support, that a half mile buffer along open roads (guidance from Hillis et al. 1991) is appropriate for the habitat types and terrain located on the Forest.

The Forest's evaluation of elk impacts associated with this Project relied on outdated methods superseded by the U.S. Forest Service's own research and local planning efforts. Use of more recent research results and updated analytical tools, including the U.S. Forest Service's own work products, such as the 2006 security map and/or the nutritional capacity models developed for revision of the Forest Plan, would have enabled the Forest to actually

take a hard look at the impacts of the Clear Creek Project on EHE and EV.

Two, while the Servheen guidelines might be comprehensive and better than the Leege guidelines, they haven't been validated or updated since 1997. Additionally, the premise for the variables in the model created by the Servheen guidelines are outdated (the road effects and livestock effects curves were developed from research conducted in the early 1980s) and not as informative as current science. Antiquated models, like those contained in the Leege and Servheen guidelines, do not tell the whole picture. Both the Leege and Servheen guidelines do not include an approach for assessing existing and post-implementation forage quality and composition; the models assume that any opening created by tree canopy removal or prescribed fire will create suitable forage. They also do not account for invasive plant distribution or potential spread of invasive plants caused by a project's action. There is now better science and there is no reason for the Forest not to use it. The Forest's argument that newer elk science can't be applied on the Forest because it was developed outside of the Forest's boundary is ridiculous. The science that informed the development of the Servheen guidelines was also completed outside of the Forest's boundary using a very small sample size, and the model has never been validated on Forest. The Tribe is not discounting the Servheen guidelines, but rather pointing out that the Forest's rationale is faulty. Due to the Forest's lack of annual effectiveness monitoring, the Forest does not know if the Servheen EHE and EV models work/reflect impacts and/or desired outcomes. In the 24 years since the Servheen guidelines were developed, the Forest has made no attempt to revise, update, or improve them despite the wealth of research about elk and elk habitat generated in that same amount of time. This research represents the best available scientific information and should take precedence over professional judgment when it is available.

Suggested Remedy

The Tribe recommends that the Forest Service withdraw the Draft Record of Decision and revise the FSEIS to incorporate updated scientific information in a more comprehensive and defensible evaluation of the potential direct, indirect, and cumulative impacts of the proposed Project on elk.

Failure to Fully Analyze Elk Security

The Forest has failed to take a hard look at the Project's effects on elk security.

Under "specific areas of cooperation," the Forest's and Tribe's SOU states: "the parties will cooperatively reassess, and possibly adjust the Project's design with NPT staff, to promote increasing metrics for elk habitat security and overall quality." A true reassessment never occurred.

Tribal staff provided the Forest with their best educated guesses in 2018 as to how to increase elk security in specific units. They did so, however, without relevant data and with the explicit understanding that the Forest

would provide a more science-based, unit-by-unit evaluation of the Project area. Elk habitat security is dictated by a combination of factors, including the nature of disturbance (e.g., type, timing, intensity, location, etc.) and where it occurs (e.g., habitat type, topography, cover, etc.), many of which are expected to vary spatially across the Project area. The Tribe is deeply disappointed that a science-based evaluation of elk security in the Project area, intended to support science-based changes to the Project to minimize its negative impacts to elk, has never occurred despite years of requests.

The preliminary results from the elk analyses in the FSEIS continue to suggest that additional changes to the Project's design, and specifically to Alt C Modified, are needed in order to increase elk security in the Project area. But, because the analyses are incomplete and inaccurate, it is unclear to the Tribe what precise modifications are needed. In addition, the changes the Forest has made to the Project with the purpose of increasing elk security are all discretionary and will not be reviewable until after they are already implemented.

The Tribe relies on the Forest to evaluate the impacts of its road networks and actions to Treaty[shy] reserved rights and resources. The Forest's continued reluctance to conduct fully these analyses here and to incorporate its results into this Project's design has harmed the Tribe's trust and faith that the Forest conducts science-based, defensible evaluations of its projects, across all wildlife species of concern.

The Forest has repeatedly touted, in Project-related documents and at meetings, the increased forage that the Project would create and the positive impact that such forage would have on elk populations in the Clear Creek Watershed. The Tribe, in tum, has repeatedly pointed out to the Forest, in meetings and in written comments, that forage is just one (1) component of healthy elk habitat. The Forest's own analyses to date suggest that habitat security is lacking in many portions of the Project area. The Tribe has attempted to impress upon the Forest that they have not adequately considered the negative impacts of motorized routes and loss of cover on elk security and elk populations in their Project analysis. The Tribe told the Forest, on several occasions, that any benefits to elk resulting from increased forage opportunities would likely be counteracted by the decreased security the Project would create.

By relying on outdated models and faulty methodologies, the Forest did not take a hard look at elk habitat security.

The Forest also failed to take a hard look at how the sequencing of the Project's timber sales will affect elk security in the area. Security is a combination of factors, including the nature of disturbance (type, timing, intensity, location, etc. and where it occurs (habitat type, topography, cover, etc.) - look at our comments on the SEIS elk report... The FSEIS says:

The Project Area would be divided up into a few sales packages that would occur over time. As one sale is occurring in a portion of the Project Area, displacement habitat would be available in the rest of the area that is not undergoing treatments. Even after completion of the harvest, elk would move back to the affected areas

looking for forage. Upon completion, most roads would be decommissioned or closed to public motorized access, bringing elk security to levels near the existing or pre-project conditions. Hiding cover would recover in 10-15 years.

There are not just a "few sales" in the Project area. There are seven (7) proposed timber sales in the Project area that will potentially be active from 2022 to 2032 and beyond. Because security is already reduced in the Project area, it would continue to degrade during implementation.

Suggested Remedy

The Tribe requests that the Forest withdraw the DROD, develop a science-based unit by unit, road by road assessment framework, and apply this framework to evaluate the Project's impacts across all alternatives and Alternative D Modified. Results from the updated evaluation should be used to identify areas for either protection of or improvement of metrics for elk habitat.

Failure to Fully Analyze Effects on Elk with New Vegetation Information to Update Existing Conditions

Because the Forest has not updated its vegetation analysis since its 2015 FEIS for the Project, it has failed to take a hard look at the Project's effects on elk.

The Forest routinely uses the following tools/documents to establish and develop a project's existing vegetation conditions, environmental baseline, desired conditions and purpose and need, and to evaluate a project's direct, indirect, and cumulative effects for plants, watershed conditions, aquatics, wildlife, and other ecological, economical, and social resources: Region 1 Vegetation Map (VMap), field sampled vegetation (FSVeg), Timber Stand Management and Records System (TSMRS), Forest Service Activity Tracking System (FACTS), variable response units (VRU), forest vegetation simulator (FVS), and other site-specific and regional assessments The Forest's approach to this Project is no different. The Forest's 2015 analysis relies on VMap, FSVeg, TSMRS, FACTS, VRU, and FVS to develop desired conditions and evaluate Project effects. Since publication of the Project's 2015 FEIS, the Forest has updated their potential vegetation types (PVT) and Forest Inventory and Analysis (FIA) database (which is used to validate VMap, includes data for existing snag and woody debris conditions, and is used in the FVS modeling), updated the Region 1 VMap in 2015 and 2020, and has conducted Natural Range of Variation (NRV) assessments. The Forest is currently using these datasets and approaches to develop and implement new projects (e.g. the Stray Creek Project, Dead Laundry Project, Green Horse Creek Project, and Red Siegel Project) and to inform the Revised Land Management Resource Plan for the Nez Perce-Clearwater National Forests. However, the Forest is not using this updated information to update its analysis of this Project. Instead, the Forest relies on its analysis in the 2015 FEIS for the Project and the outdated vegetation information that analysis relied on. The FEIS states that "[e]xisting conditions are described for the year 2012 and 2017. The year 2017 was included because that is the estimated year when actual vegetation management activities would be implemented." The Project's activities are projected to be implemented in 2022 or after the

final decision is signed. By failing to use its updated vegetation information, the Forest has failed to take a hard look at the Project's effects on elk.

Suggested Remedy

The Forest should withdraw the DROD and update the vegetation analysis in the FSEJS using the new information that the Forest generated during revision of its Land Management Plan and is currently using to analyze other proposed projects on the Forest.

Failure to Fully Analyze Impacts to Fisher

The Forest has failed to take a hard look at the Project's impact on fisher.

The Tribe has raised concerns with the Forest about the Project's impact on fisher in comments on the DEIS and FEIS. Specifically, the Tribe is concerned that the Project will destroy suitable habitat. The Forest has updated its fisher analysis in the FSEIS with more current research.

The recommended analysis unit to analyze impacts to fisher is at a landscape scale (greater than 9,000 acres). The Forest delineated fisher habitat by subwatersheds (which range in size between 16,000 to 23,000 acres in the Project area). This is an appropriate scale however, the Forest should not limit their analysis to the boundaries of subwatersheds, but rather consider the Project as a whole in addition to what lies adjacent to the Project. The Lower Clear Creek subwatershed includes both Forest and non-Forest lands. For the purposes of its fisher analysis, the Forest partitioned the Lower Clear Creek subwatershed and added it to the two (2) other subwatersheds. It does not appear that the Forest has a biological reason for this partitioning; rather, it appears the Forest did it for convenience. A large portion of the Project's forest treatments fall within the Lower Clear Creek subwatershed. By adding the Lower Clear Creek subwatershed to the South Fork Clear Creek subwatershed, the Forest has inappropriately inflated the size of the analysis area, which appears likely to have resulted in an underestimate of the true severity of impacts to fisher habitat within the Project area. Instead of limiting the analysis to the boundaries of subwatersheds, the Forest could have delineated and analyzed habitat across and adjacent to the Project area using a moving window approach, similar to the approaches used in recent literature and in the revision of the Forest Plan. The Forest also fails to mention in the FSEIS that, according to the Idaho Fish and Wildlife Information System, there have been four (4) fisher observations within the Project area.

Suggested Remedy

The Tribe requests that the Forest reevaluate impacts to fisher at biologically appropriate scales as informed by recent literature and use new vegetation information from its revision of its Land Management Resource Plan to improve its analysis.

Failure to Analyze Effect of Assumed 20-35% Reduction in Harvest Unit Acreage on Environment

The Forest has failed to take a hard look at the impacts of the Project because the agency neither provides evidentiary support for its blanket assertion that a 20-35% reduction in total harvest unit acres typically occurs during timber sale layout nor analyzes and discloses the environmental effects of these reductions.

The Forest states:

The direct, indirect and cumulative effects of action Alternatives B, C, and Dare discussed in the 2015 FEIS, pgs. 3-26 through 3-35. The discussion below updates the FISHSED model outputs which were incorrectly calculated and displayed in the 2015 FEIS and analyzes Alternative C Modified. It also includes a brief discussion of why the modeled analyses are considered overestimates through a comparison of the acres analyzed in NEPA versus the acres of harvest after actual on the ground layout occurs as a result of design feature implementation.

Table 4 of the FSEIS identifies unit numbers and proposed approximate reductions in acres under Alternative C Modified. According to the Forest, Table 4 reflects that the Project's actual harvest would be reduced by 20-35% during layout. However, the Forest only provides no unit-specific data in Table 4. Rather, Table 4 includes approximate acres or simply states: "To Be Determined During Layout."The Forest states that it arrived at "20-35%" by comparing its NEPA analyses for other projects with actual timber sale layout for those projects. The FSEIS further notes: "Generally, a 20% reduction in unit acres occurs due to additional wetlands and streams being located during marking of unit boundaries in the field."

The Forest has not provided to the Tribe or included any information or evidence in the record to support its broad assertion that 20-35% of harvest acres are typically dropped during Forest project layouts, despite previous requests from the Tribe. Although the FSEIS reports that layout for the Lost Mule Timber Sale was 34% less than the NEPA acres analyzed, this is not evidence that 20- 35% of acres are dropped in all instances at layout.103 And, even if the Forest's estimation is correct, 20-35% is a huge range and the Forest Service has an obligation under NEPA to analyze and disclose all of the effects-negative and positive-as a result of the Project. Without disclosing concrete, site-specific information about the location and amount of any reductions in harvest acres, it is impossible to know how these changes may affect several site-specific sediment model inputs or outputs.

The Forest's failure to provide evidentiary support for its assertion that it drops 20-35% of harvest acres at layout or to provide site-specific information regarding these anticipated reductions is particularly concerning in the Biological Opinion. In that document, NOAA Fisheries assumes a reduction of 20-30% in harvest acres will occur and uses this assumption to make generalized conclusions about the Project's effects with regard to ECA and sediment.104 NOAA Fisheries fails to acknowledge, however, that without analyzing site-specific reductions in harvest acreage, reductions in ECA and sediment may or may not occur.

In sum, the Forest failed to take a hard look at the Project's environmental effects of reduced harvest acres, as required under NEPA. NOAA Fisheries also erred by failing to require the Forest Service to provide this site-specific information so that it may be evaluated as part of its ESA analysis.

Suggested Remedy

The Forest should analyze and disclose impacts of anticipated harvest acreage reductions for the Project at a site-specific level. As part of this effort, the Forest should replace the "to be determined at layout" assumptions in the FSEIS with actual acres. The Forest should also reinitiate consultation with NOAA Fisheries to provide and analyze this information.

NEPA - Failure to Insure Scientific Integrity of Analvsis

Agencies must "insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements" and "insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." Agency "deference does not excuse [an agency] from ensuring the accuracy and scientific integrity of its analysis, a NEPA requirement."

Flawed Sediment Monitoring Strategy

The Forest's plan for monitoring and predicting harvest-generated sediment delivery to Project[shy] area streams lacks scientific integrity.

The Forest plans to use the GRAIP model to monitor and predict sediment delivery from Project[shy] area harvest units to streams. This is an incorrect use of the model. The Forest also appears to be under the misguided impression that the GRAIP model and Rapid Culvert Assessment Surveys generate similar data and thus Rapid Culvert Assessment Surveys can sometimes be used as a substitute or shortcut for the GRAIP model.

GRAIP Model

In 2015, the Tribe requested that the Forest complete a road-by-road analysis of the transportation system in the Project area. The Tribe included in its request that the Forest complete GRAIP surveys of all roads within the Project area to better understand where road-generated sediment was entering streams. The Tribe made this recommendation so that the Forest could identify and prioritize the maintenance, improvement, and reconstruction of high sediment production road segments, thereby reducing sediment delivery to natural spawning habitat within the Project area and to the Kooskia Hatchery downstream.

The Tribe appreciates that the Forest completed a GRAIP survey of the Hoodoo prescription watershed in 2019. The Tribe is concerned, however, by how the Forest intends to use it. The FSEIS indicates that the Forest is not planning to use the GRAIP survey to fix sediment production and delivery from roads prior to implementing the Lost Mule Integrated Restoration Timber Contract ("Lost Mule Timber Sale") in the Hoodoo prescription watershed. Rather, the Forest is planning to use the 2019 GRAIP survey to monitor sediment delivery from harvest units. The Forest states in the FSEIS:

I have decided that upon completion of implementation of activities within the Hoodoo subwatershed, we will again perform GRAIP analysis on system roads to determine where the project falls within the bounds of effects predicted in the EIS. If it does not fall within the bounds of these effects (if sediment delivery (kg/yr) as measured by GRAIP analysis shows a statistically significant increase from current measurements at drain points during post implementation GRAIP analysis), we will implement Alternative D for the Browns Spring and Clear Creek subwatersheds. If GRAIP analysis does not show a statistically significant increase from current GRAIP measurements at drain points, we will continue with Alternative C modified for the Browns Spring and Clear Creek subwatersheds.

In other words, the Forest plans to compare GRAIP data from two (2) different survey years to identify whether the Lost Mule Sale has caused excessive sediment delivery to streams in the Hoodoo prescription watershed. This is a gross misuse of the GRAIP survey and will not yield meaningful or useful results.

The GRAIP survey was specifically developed and designed by the Rocky Mountain Research Station to identify and model current road conditions, sediment production and transport, and road locations (referred to as "drain points") where sediment leaves the road prism and can be delivered to streams. GRAIP surveys thereby enable land managers to pinpoint road locations where sediment transportation and delivery to streams is occurring and to prioritize road sections in need of maintenance. GRAIP was not designed to measure sediment delivery from harvest units. Landscape-altering vegetative disturbance like timber harvest is not an input into the GRAIP model and therefore will not be captured by a GRAIP survey. Rather, a GRAIP survey can only reveal where sediment transportation and delivery is occurring on harvest-associated haul roads during a specific snapshot in time.

The GRAIP model isn't suited to sediment monitoring due to two (2) major factors: the variability of natural weather and climate, and the inability to define a level of sediment that is acceptable at one (1) point in time. In other words, while the quantitative outputs of the GRAIP model are very good and can be improved drastically with in-basin sediment plots, there is natural variability in weather conditions that cannot be captured through one or two (2) surveys. While a subsequent GRAIP survey could show relative sediment production changes in a road network after road work was completed, to do so the second survey would have to occur several years after the conclusion of the sale. And, regardless, there is no way to show a statistically significant difference in sediment delivery through two (2) data points, generated by two (2) GRAIP surveys, without long term monitoring data. The results also would not be applicable outside this particular subwatershed.

GRAIP is, therefore, simply an inappropriate methodology for monitoring sediment delivery changes for the Lost Mule Timber Sale.

RapidCulvertAssessmentSurveys

The Forest appears to believe that Rapid Culvert Assessment Surveys are a shortcut to gathering the data that GRAIP surveys collect. The Forest states in FSEIS Appendix O - GRAIP Analysis - Hoodoo Subwatershed Road Sediment Modeling Results and Comparisons West Fork Clear Creek Drainage:

The GRAIP inventory conducts intensive field inventories of road segments prior to modeling. The model provides higher accuracy of potential sediment delivery points than the GRAIP_Lite which overestimated delivery, or WEPP:Road which underestimated it. Results were similar between GRAIP and rapid field surveys; however, the production is much lower than rapid field survey method. The use of GRAIP inventory may be useful on a small scale such as a specific high use road in a watershed where aquatic conditions are a concern.

The greatest management consideration for the three models is that they require further field surveys to identify site-specific locations and recommendations for road improvement work whereas the rapid field method can identify the improvement work concurrently with the survey. The rapid surveys are also conducted more quickly than GRAIP inventories while achieving similar results in the identification of segments that may require work.

The Rapid Culvert Assessment Survey was developed and designed to assist land managers with identifying and prioritizing the replacement and maintenance of live water road crossings, also known as culverts. According to the Forest, Rapid Culvert Assessment "[S]urveys [simply] entail driving to each live water crossing on a given road. Each structure is [then] located, reviewed and tracked with a GPS point." The Rapid Culvert Survey Protocol states culvert priority is, "determined while on site and is based on failure risk or need to divert ditchwater away from stream crossing." According to the Forest's own staff, "[t]he rapid survey protocol was not meant to be used in modeling efforts or to estimate the amount of sediment coming off of roads at crossings. It was simply developed to identify the work needed to reduce potential sediment delivery from roads at stream crossings" by fixing and replacing culverts. Thus, Rapid Culvert Assessment Surveys cannot detect any road

segment conditions away from live stream crossings. Rather, they can simply tell you where, in a given area, roads cross live water and the relative likelihood that a road will deliver sediment to live water at those crossings. GRAIP surveys can also tell you this, but GRAIP surveys combined with the GRAIP model can also tell you much more.

The GRAIP model can actually identify and model current road conditions and sediment production and transport on roads. It can also detect road locations where sediment leaves the road prism and is delivered to streams. In other words, while Rapid Culvert Assessment Surveys can tell one where sediment might be delivered to streams, the GRAIP model can tell one where sediment is being delivered to streams and give one some idea of how much sediment is being delivered. The constraints of Rapid Culvert Assessment Surveys are evidenced in the FSEIS, which reports that the Forest used Rapid Culvert Assessment Survey results to broadly identify roads in need of improvement and reconditioning without identifying precise road locations. In other words, the Forest was not able to use the Rapid Culvert Assessment Survey results to estimate how much sediment production and delivery to streams would actually be addressed by road improvement activities.

Since both GRAIP surveys and the Rapid Culvert Assessment Survey can detect potential sediment delivery points from roadways (i.e. where roads cross live water), there may, at first glance, appear to be a correlation between their results. But, beyond that, the two tools do not provide comparable information and cannot be used interchangeably. The Forest's own maps, Figures 1 and 2 inserted below, demonstrate this point. Figures 1 and 2 show where high GRAIP-identified sediment delivery points correspond with survey locations of the Rapid Culvert Assessment Surveys. The priority given to sediment delivery points in the Rapid Culvert Assessment Survey results does not correspond, however, to the relative sediment delivery identified in the GRAIP model. For example, eight (8) of the twelve (12) highest GRAIP-modeled sediment delivery points were classified as low priority or not prioritized in the results of the Rapid Culvert Assessment Surveys. If the GRAIP model and Rapid Culvert Assessment Surveys could be counted on to produce similar results, the priority locations identified by the Rapid Culvert Assessment Surveys would match the low delivery drain points identified by the GRAIP model. The Forest's GRAIP and Rapid Culvert Assessment Survey, GRAIP model run, Rapid Culvert Surveys Map, and live water crossing data all demonstrates that GRAIP surveys and Rapid Culvert Assessment do not necessarily produce similar results.

Suggested Remedy:

The Forest should develop a more detailed monitoring plan for measuring instream sediment in the Hoodoo Watershed, and throughout the Project area. This plan should have a control stream to determine if instream sediment and temperature are increasing as a result of the Project. The Forest should work with the Tribe and its regional partners to finalize this plan to ensure it meets

the objective of determining the amount of Project-related sediment reaching Project-area streams.

The Forest should monitor sediment generated in the harvest units as well as delivery from the road network in real time, using instream turbidity and temperature gauges placed in confluences below the prescription harvest

units (as well as control in non-harvest confluences to account for natural events).

Using the completed GRAIP surveys for the Hoodo prescription watershed, Tribal and Forest staff should specifically identify high risk road segments and drain point locations. The Forest should then repair identified road segments and drain points prior to initiating the Project's timber sales to minimize road-related sediment delivery to streams.

The Forest should complete GRAIP surveys in all of the Project area's other prescription watersheds. Thereafter, Tribal and Forest staff should collaborate on a road-by-road analysis of road locations where sediment delivery to streams is occuring. The Tribe requested that the Forest and Tribal staff complete this analysis. It would be similar to the unit-by-unit analysis the Tribal and Forest staff completed of harvest-related sediment delivery to streams in 2018.

After Project completion, the Forest should conduct a GRAIP survey of all Project area roads, to effectively prioritize the road work needed to maintain the road network in the Clear Creek Watershed and prevent future sediment delivery to streams and the Kooskia Hatchery.

Failure to Update Project's Timber Sale Timeline to Ensure Feasibility of Adaptive Management Strategy

The Forest's adaptive management plan lacks scientific integrity because the Project's current timber sale schedule prevents the Forest from switching to Alternative D should sediment delivery to Project area streams, as a result of the Lost Mule Timber Sale, exceed the "bounds of effects predicted in the EIS."

Again, the FSEIS states:

I have decided that upon completion of implementation of activities within the Hoodoo subwatershed, we will again perform GRAIP analysis on system roads to determine where the project falls within the bounds of effects predicted in the EIS. If it does not fall within the bounds of these effects (if sediment delivery (kg/yr) as measured by GRAIP analysis shows a statistically significant increase from current measurements at drain points during post implementation GRAIP analysis), we will implement Alternative D for the Browns Spring and Clear Creek subwatersheds. If GRAIP analysis does not show a statistically significant increase from current GRAIP measurements at drain points, we will continue with Alternative C modified for the Browns Spring and Clear Creek subwatersheds.

The Hoodoo Creek prescription subwatershed has been divided between the Lost Mule Timber Sale in the

northern part of the Clear Creek Watershed and the Clear Corral Timber Sale in the southern or headwater part of the Clear Creek Watershed. These two (2) timber sales are proposed for 2022 and 2024 respectively. The Clear Creek and Browns Spring prescription watersheds are divided into the Big Cedar Timber Sale in 2025 and Pine Knob Timber Sale in 2026. If timber sale contracts take place over 5 years, as the Forest predicts, the Lost Mule sale would be active until 2027, two years after the start of the Big Cedar Timber Sale in the Clear Creek prescription watershed and one (1) year after the start of the Pine Knob Timber Sale in the Brown Springs prescription watershed. The Lost Mule sale will, therefore, still be being implemented when the sales for the Brown Springs and Clear Creek prescription watersheds are finalized and layout is commenced. It will, thus, be impossible for the Forest to assess the effects of the Lost Mule sale and implement Alternative D in the Brown Springs and Clear Creek prescription watersheds as the Forest intends.

It is important to note that the Tribe cannot support the Forest's decision to switch to Alternative D, as an adaptive management strategy, should implementation of Alternative C Modified in the Hoodoo subwatershed cause sediment delivery to Project area streams in excess of the Final Supplemental Environmental Impact Statement's predictions. The Forest has not dropped from Alternative D some of the harvest unts at highest risk of delivering sediment to Project area streams and has not made scientifically-informed changes to Alternative D to address elk security. Therefore, the Tribe cannot support its implementation. The Tribe supports the development and implementation of Alternative D Modified throughout the Project area.

Suggested Remedy:

The Forest should develop a sediment monitoring protocol that does not use the GRAIP model. Ideally, this monitoring protocol would not require waiting until the Lost Mule Timber Sale is complete to assess its sediment effects. Ideally, the Forest would monitor harvest unit sediment delivery in real time and stop a sale as soon as it determines the sales effects are in excess of those predicted in the FSEIS. If the Forest must wait until the Lost Mule Timber Sale is complete to assess its sediment effects, the Forest should update its timber sale schedule so that five (5) years of monitoring can be completed and analysed after the commencement of the Lost Mule Timber Sale and prior to the start of the Pine Knob Timber Sale so that the Forest has sufficient time to determine whether adaptive management should be implemented in the Brown Springs and Clear Creek prescription watersheds. This corrected sale schedule should be included in the Final ROD.

Inappropriate Reliance on Inaccurate Watershed Improving Tracking Database

The Forest's Watershed Improvement Tracking database ("WIT") contains so much flawed data that any tables or modeling analyses in the FSEIS that use its data lack scientific integrity.

WIT is spatial geodatabase which tracks various aspects of watershed restoration actions, including but not limited to: route number, activity name, activity type, site name, planned year, accomplished year, completed year, project acres, completed acres, project miles, completed miles, stream miles accessed, estimated cost, and

NEPA status. The Forest's WIT database currently has numerous null (empty) values, duplicated conflicting values, and errors (road decommission status incorrectly reported). Unfortunately, the Forest has incorporated this flawed data into its analysis throughout the FSEIS, including in its upward trend tables. As a result of these errors, the Forest's analyses and conclusions in the FSEIS that rely on the WIT database, lack accurate environmental information and thus integrity.

Table 1 below summarizes the null values the Tribe identified during its review of a subset of the WIT database. As part of this review, the Tribe cross referenced roads listed with Non-System Road Inventories ("NSRI") completed by the Tribe in the Clear Creek Watershed. The Tribe was unable, however, to identify and evaluate many of the roads in the WIT database due to the databases' large number of null (empty) values.

Table 2 below provides examples of the other errors that the Tribe encountered in the database. Because the Tribe does not possess redundant data for all roads in the Clear Creek Watershed, the Tribe was only able to compare 59% of the total miles in the database to its independent surveys. It is also important to note that the Tribe's data was derived from surveys that took place prior to 2016. Table 2. Examples of errors identified in the WIT database.

These errors illustrate why this WIT database should not be used in the FSEIS analysis until its numerous errors are corrected. Furthermore, the error-ridden WIT database prevents the Tribe and public from obtaining a true understanding of road conditions in the Clear Creek Watershed.

Suggested Remedy

TheForestshould correct, validate, and update the current WIT database and all FSEIS analyses that use it,includingthe upward trend analysis for the Pine Knob, Middle Fork Clear, South Fork Clear, and Clear Creek prescription watersheds. The Forest should include Tribal staff and its NSRI data in the validation of the WIT database.

Flawed Assumption That No Sediment Will Reach Project Area Streams Through PACFISH Buffers

The Forest's conclusion that no sediment will reach Project area streams through PACFISH buffers lack scientific support and is, therefore, without integrity.

The Forest asserts in the FSEIS that "local RHCA monitoring found no sediment delivery through the [PACFISH] buffers (USDA, 2014). Visual observations of post-harvest areas found the same results elsewhere in the Forest (K. Smith, personal observations, 2000-2013). With no delivery, cobble embeddedness levels are not expected to increase as a result of harvest. Monitoring along 23 miles ofRHCAs in the Forest found no sediment delivery

through the [PACFISH] buffers." The Forest's assumption that no sediment delivery will occur through PACFISH buffers lacks scientific integrity.

The Forest relies on its 2014 PACFISH Buffer Monitoring Report to justify its conclusion that no Project-generated sediment from harvest will reach water through PACFISH buffers and that no-cut PACFISH buffers will capture and store most of the Project's erosion material. It is unclear, however, whether the Forest's one (1)-time stream buffer monitoring surveys, recorded in the 2014 PACFISH Buffer Monitoring Report, actually had a high likelihood of detecting sediment delivery to streams. These surveys were done in the summer (June 30 - July 22) when there is little precipitation to facilitate sediment delivery to streams. Additionally, the amount of time that elapsed between harvest and the surveys (average 4.4 years, range 1-6 years) raises doubt about the surveys' ability to predict the efficacy of PACFISH buffers during Project implementation. Additionally, the Forest failed to consider specific site conditions including soil type, soil depth, and status/condition of riparian and understory vegetation during its surveys, making it hard to determine how erodible the surveyed soils were and how detectable sediment delivery to streams would be.

The 2014 PACFISH Buffer Monitoring Report protocol and results do not appear to be supported by scientific literature and should not be used to determine sediment effects in the FSEIS. Sediment studies have shown that 30 meter (90 foot) buffers can be expected to trap 85% of sediment delivery to streams. Given that 100 foot PACFISH buffers are all that is required on intermittent channels, which are typically located in steeper portions of a watershed, intermittent channels will almost certainly receive and transport some Project-generated sediment downstream to larger fish bearing streams. Cristan et al. 2015 noted that U.S. Forest Service roads, skid trails, and stream crossings have the greatest potential for erosion and sediment delivery to streams. Reid and Ziemer (1994) found that controlling sediment delivery is most important in small, non-fish bearing and intermittent streams since they account for more than 50% of the total stream length in a watershed. Richardson et al. notes that, "[g]iven the landscape scale of the alterations that forest practices create, trials need to be conducted across landscapes and on longer time scales to address ecosystem changes explicitly and to compare these to natural disturbance regimes....However, requirements for narrow, fixed-width buffer unusually originated for administratively simple but scientifically untested reasons. Reliance on fixed-width buffers suffers from a scarcity of actual tests and evaluations of the effectiveness of current guidelines. Landscape-level considerations usually have been absent from the site-specific guidelines (reach scale) used in many places." In other words, the Forests lack of monitoring and site specific buffer recommendations call into question the effects analysis of sediment delivery.

The Tribe understands and appreciates the efficacy of PACFISH buffers, but does not agree that they are 100% effective. Instead, the Tribe agrees that PACFISH buffers, road improvements/maintenance, decommissioning, and other Best Management Practices ("BMPs") can reduce sediment delivery from harvest and haul activities, but it is not reasonable to assume contributions will be reduced to zero as suggested in the FSEIS. The Tribe also believes it is important to note that individual harvest units in the Project area have up to 7.2 miles (37.3 miles/sq.mi) of roads, many of which bypass PACFISH buffers. The potential effects of non[shy] system roads and skid trails are not addressed in the Forest's 2014 PACFISH Monitoring Report.

Suggested Remedy

The Forest should update its sediment delivery analysis with a more realistic and scientifically[shy] supported method of estimating sediment delivery through buffers of various widths, including unbuffered zero order streams. The Forest's updated method should take into account site-specific criteria including soil type/depth, vegetation type/condition, and time post significant precipitation event. The method should include sampling instream conditions. The Forest should only rely on PACFISH surveys that occur in a timeframe and during weather conditions where harvest[shy] generated sediment delivery through PACFISH buffers could reasonably be observed

Failure to Ensure Scientific Integrity of Upward Trend Analysis

The Forest's upward trend analysis lacks scientific integrity.

Appendix A to the 1987 Forest Plan identifies 86 prescription watersheds which were considered to be below water quality objective when the Forest Plan was finalized. Appendix A further states that for those prescription watersheds where "sediment is the primary limiting factor [...] timber management can occur [...] concurrent with improvement efforts, as long as a positive upward trend in habitat carrying capacity is indicated" (emphasis added). Seven (7) of the streams listed in Appendix A as requiring an upward trend analysis are within the Clear Creek Watershed.

The Forest has concluded that five (5) of the original seven (7) prescription watersheds in the Clear Creek Watershed remain impaired for sediment and, therefore, require an upward trend analysis. These prescription watersheds are: Pine Knob Creek, Middle Clear Creek, South Fork Clear Creek, Hoodoo Creek, and Clear Creek.

The Tribe appreciates the effort the Forest put into updating its upward trend analysis for the five

(5) prescription watersheds not meeting their water quality objectives. The Tribe also appreciates the great lengths to which the Forest went to make the thinking and assumptions that underpin its upward trend analysis as transparent as possible. However, the Tribe remains unconvinced that an upward trend is or will occur in the five (5) below standard prescription watersheds.

The Forest's 2011 implementation guide to Appendix A states:

Upward trend means that stream conditions determined through analysis to be below the Forest Plan objective will move toward the objective over time. Stream specific determination of existing conditions and present or

future improving trend should be done through a convergence of evidence using stream surveys, monitoring results, watershed condition inventories, literature reviews, predictive modeling, and professional judgment.

The Tribe believes that this guidance calls for at least some comparable data to support the presence of an upward trend. The Tribe does not see any such data for the Pine Knob Creek, Middle Clear Creek, South Fork Clear Creek, Hoodoo Creek, and Clear Creek prescription watersheds. Due to a lack of clear data and discrepancies in the FSEIS's upward trend section, it's also difficult to track and understand what evidence the Forest is relying on to find an upward trend in the Pine Knob Creek, Middle Clear Creek, South Fork Clear Creek, Hoodoo Creek, and Clear Creek prescription watersheds. For instance, the FSEIS includes different road mile totals in the different models included in the analysis, and it is unclear which watershed improvements the Forest used in its upward trend analysis. There are also a huge number of null or empty values and errors in the WIT database, on which the Forest's upward trend analysis relies. All of these issues make it impossible for the Tribe, or public, to understand or check the Forest's analysis.

Moreover, the FSEIS's upward trend tables are constructed in a biased manner. According to the Forest's tables, an upward trend can be achieved in a prescription watershed without specific watershed improvements occurring in that watershed. The Forest's upward trend tables also overestimate the positive effects of "restoration activities," such as road improvement, road decommissioning, and stream crossing improvements, and underestimate the deleterious effects of timber harvest and temporary road construction on aquatic systems.

The Tribe also takes issue with the Forest's decision to use Pete King Creek as a substitute for percent fines data for the Pine Knob Creek, Middle Clear Creek, South Fork Clear Creek, Hoodoo Creek, and Clear Creek prescription watersheds. The FSEIS states:

Long term steelhead spawning gravel monitoring data elsewhere on the Forest suggests overall downward trends in instream sediment. Monitoring was conducted in Pete King and Deadman Creeks, tributaries to the nearby Lochsa River, and was designed to assess the effects of road decommissioning on instream sediment levels. Sediment coring data techniques were used to assess the percent of fine sediment in spawning gravels. Pete King Creek was the study's treatment area where 55 miles of road decommissioning occurred and Deadman was the control drainage. No decommissioning and relatively few roads occur in Deadman. Past timber harvest occurred in both drainages. Figures 2 and 3 display variable levels of fine sediment with overall decreasing trends in both the treated and untreated systems.

The observed sediment decreases are hypothesized to be a result of improved timber harvest practices which include the application of Best Management Practices and PACFISH, the reduction in overall timber harvest and new road construction, and road decommissioning (Jones, 2001). In summary, we believe these practices are at least partially responsible for the observed declining trends in fine sediment.

High stream flows observed in 2017 and 2019 flushed accumulated sediment in many streams resulting in lower

cobble embeddedness levels. Declines in embeddedness were noted within the project area in Brown Springs, Pine Knob and West Fork Clear Creek as previously discussed. Large declines were also noted on the Forest in the Lolo Creek drainage including the mainstem, Eldorado and Musselshell Creeks. Flushing flows resulted in achievement [sic] of desired conditions for sediment in these streams.

While what occurred in Pete King Creek and Deadman Creek may be correlated with improved harvest practices and may be helpful to understanding what an improving trend might look like in the Clear Creek Watershed's prescription watersheds, an improving trend in Pete King Creek isnot evidence of an improving trend in any of the Clear Creek Watershed's prescription watersheds. Using Pete King Creek as a stand-in for actual conditions in the Pine Knob Creek, Middle Clear Creek, South Fork Clear Creek, Hoodoo Creek, and Clear Creek prescription watersheds is simply not scientifically defensible.

The fact remains that the Forest has not monitored or collected recent data in the Clear Creek watershed to demonstrate any improvement in the five (5) impaired subwatersheds. The Tribe remains unsure that the Forest's trend analysis reflects current conditions in the prescription watersheds or what those conditions will be post Project implementation.

Suggested Remedy

The Forest should update its upward trend analysis. The Forest should update its Watershed Improvement Tracking database to correct its errors and null values and reconcile the road mile totals in the various models it uses in its analysis. The Forest should consider incorporating measurable elements such as percentage of regeneration harvest in vegetation treatments, ECA, landslide prone acres, Geo WEPP model results, high erosion risk acres and detrimental soil disturbance in the short and long-term upward trend ratings. The Forest should also consider collecting a timed series of substrate data at the same sites, using the same methodology to support any conclusions made about the upward trend.

In its updated upward trend analysis, the Forest should not assume that watershed improvements fully mitigate the negative consequences of ground-disturbing activities, such as temporary road building and timber harvest activities. The Forest should also clearly indicate which watershed improvements it is including in its analysis and include monitoring data in its upward trend tables from the streams within the prescription watersheds for which an upward trend is required. Long[shy] term trends in sediment core monitoring (such as those the Forest obtained for Pete King Creek,145 which is not in the Clear Creek Watershed), is exactly the type of information that the Forest should include in its upward trend tables.

Failure to Correctly Use the Servheen Guidelines

The Forest's use of the Servheen guidelines lacks scientific integrity.

The Tribe acknowledges and appreciates that since publication of the 2015 FEIS for the Project, the Forest has updated its EHE and EV analyses using the Servheen guidelines, as requested (at a minimum) by the Tribe. However, the Forest's updated assessment in the FSEIS is fraught with errors.

That the Forest failed to fully and accurately implement the Servheen guidelines is deeply troubling to the Tribe. The Tribe helped develop the Servheen guidelines and has a long history urging the Forest in comment letters and staff to staff discussion to improve and update the guidelines with more recent science. It is hard for the Tribe to understand how, after so many years, the Forest is still failing to run the Servheen guidelines correctly.

EHE Analysis

Upon review of the FSEIS, the Tribe discovered the following errors:

* the size of the evaluation area the Forest used in the EHE calculations is incorrect for three

(3) of the seven (7) Elk Analysis Areas (EAA), specifically, Brown Springs, Pine Knob, and South Fork Clear Creek EAAs;

* the road coefficients used in the EHE calculations are incorrect for six (6) of the seven (7) EAAs, specifically, Brown Springs, Clear Creek 1, Clear Creek 2, Clear Creek 3, Pine Knob, and Solo Creek EAAs; and
* the area used by livestock in the EHE calculations is incorrect for all seven (7) EAAs,

The FSEIS also lacks a clear explanation of the Forest's underlying assumptions and uncertainties. For instance, the Forest's methodologies and underlying assumptions for calculating open areas, hiding cover, and security areas are not evident in the FSEIS.

As a result of the errors in the Forest's EHE calculations, the Forest's results cannot be relied upon. As a result of Forest's failure to articulate the assumptions it relied on in its calculations, its methods are impossible to understand and replicate. As a consequence, the Project's impacts on elk and elk habitat, and any other Project effects that rely on the Forest's elk analysis (e.g. gray wolf) are unknowable.

A notable omission in the Forest's EHE analysis for the Project, is the Forest's lack of clarity on whether or not it excluded winter range. Per the Servheen guidelines, areas of winter range should be excluded from the EHE analysis. Seven EAAs that include both summer and winter range habitats for elk overlap the Project. The FSEIS identifies the amount of summer range within each EAA, but these acreages do not appear to be what was used in the EHE calculations, suggesting that the Forest either included winter range in its EHE analysis or it used incorrect EAA sizes. Estimation of EHE relies on the size of each EAA, so if this estimation is incorrect, the whole analysis and discussion of the Project's impacts to elk and elk habitat will be incorrect.

The Forest also mischaracterizes in both the 2015 FEIS and FSEIS how it has analyzed the direct, indirect, and cumulative effects of livestock grazing with respect to the Project. Permitted livestock grazing has been ongoing in the Project area since the 1960s and, according to the Forest's 2012 Eastside Allotment Management Planning Project, there are some resource concerns about soil health and productivity, forage conditions, and livestock distribution across the two (2) allotments. Range analysis and allotment management plans need to be completed every decade for all allotments, but to the Tribe's knowledge, plans for the Tahoe/Clear Creek and Corral Hill allotments have not been updated in over ten (10) years, which is a violation of the Forest Plan. The FSEIS should have incorporated existing allotment conditions within the Project and discuss them in relation to impacts to elk. Allotment condition, trend, and how livestock use the Project area in relation to the EAAs is needed to understand current resource conditions and realize the conditions that would be created by the Project's actions.

The Forest also miscalculated livestock use. Under the Servheen guidelines, EHE takes into account potential elk use in relation to cattle density for each EAA. The Forest, however, calculates livestock use for the entire Project area and not by individual EAA. Livestock use, intensity, duration, and distribution needs to be specific to each EAA, otherwise the results will be invalid and inaccurate. The Forest does not explain its methodology or reasoning for using the entire Project area as the analysis unit.

The Forest also fails to evaluate livestock grazing in light of Servheen's recommendations and special considerations in managing EHE. For instance, the Forest did not examine potential forage conflicts on ranges commonly used by elk and livestock to determine if carrying capacity is being reduced, did not examine if they needed to not permit activities (i.e. livestock grazing) on established calving and rearing areas during May 1 through July 15, and identifying and protecting special habitat components like riparian areas, wallows, calving, and other high-use area by buffering them from disturbance, activities, and livestock grazing. The FEIS and FSEIS speak little to these recommendations and considerations in the Servheen guidelines and do not provide enough spatially and temporally explicit information about cattle use, intensity, duration, and distribution within the Project area. The FSEIS states that 70 head of cattle use about 8 square miles for just the summer across two (2) allotments. It is unclear how the Forest arrived at this amount of use across both allotments, considering that according to the 2020 Annual Operating Instructions for the Tahoe-Clear Creek Allotment (42.2 sq mi) 70 cow/calf pairs are permitted in the summer months and 125 cow-calf pairs are permitted in the summer months on the Corral Hill Allotment (37.9 sq mi).

EV Analysis

As mentioned previously, Tribal staff did not resolve their concerns about the EV calculations and estimation of road densities with Forest staff prior to the release of the DROD and FSEIS. The Forest appears to have reconsidered its vulnerability analysis and presented new information in the 2018 DSEIS, which is now presented in the FSEIS. According to the FSEIS, because the Forest's biologist considered IDFG's predicted elk bull:cow ratio for the Project area in 2015 "high," the Forest declined to calculate EV for the Project. The FSEIS states that "[l]acking confident data, no current conclusion for EV can be assessed from the inconclusive results of the 2015 [from Idaho Fish and Game] aerial survey." However, the Forest does qualitatively discuss the Project's impacts on elk vulnerability and discloses that EV may increase in harvest units located along open roads. According to the FSEIS, the units where vulnerability may increase can be found in Appendix F. Unfortunately, Appendix F does not contain a list of units along open roads. The Forest's EV discussion in the FSEIS is also limited to a discussion of road densities within each EAA and states that road decommissioning and road closures after implementation will improve elk security and reduce vulnerability but does not explain to what degree.

What the Forest fails to acknowledge in its EV analysis is that road densities alone cannot show the spatial impact of a transportation network and harvest treatments on elk habitat. Furthermore, the Forest states that EV may increase, but it can't be quantified. The reasons are not made clear.

The Forest also later states that "...[t]he potential increase in EV is small and only due to roads currently open to the public during hunting season." What about closed roads that still allow non[shy] motorized transportation (hiking, biking, etc.) during the hunting season? Did the Forest consider data from IDFG after 2015? Did the Forest map security areas and assess vulnerability? If the Forest's current perception is that elk have declined in GMU 16, then there is reason to give a full and accurate assessment of the baseline conditions and impacts from the Project. Because the Forest was not able to provide a clear assessment of EV, Tribal staff were unable to suggest possible changes to the Project's actions.

The Forest's failure to fully and accurately implement the Servheen guidelines is deeply troubling to the Tribe considering that the Tribe has a long history of working with the Forest to improve the guidelines. The Tribe is disheartened that the Forest is still failing to run the Servheen model correctly.

Suggested Remedy

The Forest should correct the errors in the EHE analysis, provide a clear description of its methodology, describe any assumptions it made in completing its analysis, and revise its discussion of impacts to elk and wolves based on the updated EHE results. The Forest should revise the EV analysis to better reflect existing conditions and effects of the Project. Based on these updated analyses, the Forest should make needed changes to the Project's design.

NEPA - Failure to Fulfill Purpose and Need

An agency must state in every EIS the purpose and need for which they are proposing alternative actions. Agencies have broad discretion in defining their purpose and need, but "must look hard at the factors relevant to the definition of purpose" and cannot articulate their purpose and need so narrowly as to eliminate all alternatives or courses of action, save one. "An agency's consideration of alternatives is adequate 'if it considers an appropriate range of alternatives, even if it does not consider every available alternative. '" Courts review an agency's selection of purpose and need and its range of alternatives under a "rule of reason," which requires them to make "a pragmatic judgment [regarding] whether the EIS's form, content and preparation foster both informed decision-making and informed public participation."

Failure to Improve Elk Habitat Effectiveness

The Forest's Project fails to fulfill one of its own purposes and needs: to "improve elk habitat effectiveness."

According to the Forest's own calculations, under Alternative C Modified EHE within the Project area does not improve. With the exception of one (1) out of the seven (7) Elk Analysis Areas included in Alternatives B and D, EHE either stays the same or decreases during and after implementation of this Project under all action alternatives. The Tribe, therefore, strongly disagrees with the DROD that Alt C Modified "...[w]ill meet habitat effectiveness for Elk and there is still adequate security left in the analysis area... "

Throughout the Forest's Project planning, development, and consultation phases, the Tribe raised concerns regarding the Forest's ability to meet its own purpose for elk. During scoping, the Tribe questioned why the Forest was increasing elk forage in the Project area when security, rather than forage, was the primary limiting factor for the species in the Project area. These results, if nothing else, warrant further evaluation using best available scientific information.

SuggestedRemedy

The Forest should complete the elk-related remedies set forth in previous sections of this Objection. Based on updated analyses of the Project's impact on elk, the Forest should withdraw the Draft Record of Decision and amend the Project's design to promote a static or upward trend in appropriate metrics for elk within both summer and winter range areas.

NFMA - Failure to Comply with 1987 Forest Plan

National Forests must be managed in compliance with their Land Resource Management Plans. "An agency's position that is contrary to the clear language of a Forest Plan is not entitled to deference."

Failure to Fully Use the Forest Plan's Elk Vulnerability Model and Adequately Characterize Elk Security

The Forest failed to comply with the 1987 Forest Plan by not fully implementing the Servheen guidelines for EV.

The original 1987 Forest Plan required the Forest to use the Leege guidelines to assess the attainment of elk habitat objectives in project evaluations. After the Tribe appealed the 1987 Forest Plan in 1988 on the grounds that the Leege guidelines were inadequate for assessing Project[shy] related impacts to elk habitat, the Tribe entered into a settlement agreement with the Nez Perce National Forest, which resulted in 1987 Forest Plan, Amendment No. 7 (Jan. 2, 1990). Amendment No. 7 states:

The Nez Perce National Forest will invite the Idaho Department of Fish and Game, University of Idaho, and the National Forest Research Station to participate, along with the Nez Perce Tribe, in developing a study plan to validate and, if needed, refine the Nez Perce elk effectiveness model. [...] Model changes and refinements will be incorporated into the Nez Perce Forest version of the elk effectiveness model, and the amended ver ion of the model will beused in future forest planning. (emphasis added). In February 1992, a research team composed of representatives from the Nez Perce and Clearwater National Forests, IDFG, and the Tribe came together to fulfill Amendment No. 7. In December 1997, the research team finalized this work and published a revision of the Leege guidelines named the Servheen guidelines. The two (2) purposes for developing the Servheen guidelines were to standardize and update the measure of EHE contained in the Leege guidelines and to devise and implement an improved measure of EV. In light of this history and the development of the Servheen EV model, the Forest's statement in the FSEIS that "[t]here are no Forest Plan standards for elk security" is simply erroneous. On the contrary, it is a Forest Plan Standard that the Forest fully use the Servheen guidelines to evaluate vulnerability and security.

Unlike the Leege guidelines, the Servheen guidelines recognized that the effectiveness of elk habitats and the vulnerability of elk populations were important yet separate elk management issues. Thus, the Servheen guidelines created separate models for EHE and EV. Under the Servheen guidelines, assessment of security areas is addressed within the context of the EV model. One (1) revision from Leege to Servheen was the elimination of the "adequacy of security areas" (as defined by the percent of an area qualifying as 250 acres of contiguous habitat more than 0.5

)

miles from open roads, (i.e. the "Hillis guidelines" from the EHE calculations. In light of this

revision, the Servheen guidelines add a recommendation which states "[i]f summer logging is planned on elk summer range, provide adjacent security areas at least as large as the areas being distured to provide elk security during periods of timber harvest and/or road building activity. This may be accomplished by scheduling of sale subdivisions so that one or more subdivision is closed to all human activity including log hauling at one (1) time. Try to provide a ridge line between disturbed and security areas. It is preferred to have more than one security area adjacent to the sale area." It is unclear in the FSEIS if and how the Forest incorporated this recommendation. And part of this confusion stems from the Forest's continued reliance on the Hillis guidelines, which were only meant to be minimum guidelines for delineating security areas.

The Forest has arbitrarily relied on EV guidelines as proposed by the Hillis guidelines. The Hillis guidelines are older than, and inferior to, the Servheen guidelines; they also overestimate the size of security areas available to elk. The Forest has given no justification for its decision to use the Hillis guidelines. As a consequence, elk security is improperly characterized in the FSEIS. The FSEIS reports that 6 of 7 EAAs meet the 30% desired conditions for security (as defined by the Hillis guidelines), but it is unclear how the Forest derived this result. Furthermore, it appears from the Forest's EHE calculation sheets that security (again, it is unclear how this is calculated) falls below the 30% desired condition in five (5) of seven (7) EAAs under Alternative C Modified and four (4) of seven (7) EAAs under Alternative D. In one (1) EAA, the amount of security declines as much as 50% post implementation under Alternative C Modified.

The Forest's failure to make full use of the Servheen guidelines with respect to security is a critical omission, not only because the Servheen guidelines are required by Amendment No. 7 to the 1987 Forest Plan but because the Forest appears to, as a result, have underestimated the Project's impact on elk vulnerability. Such impacts to elk are likely to undermine any Project benefits the Forest has identified, such as increased forage production. Without a proper assessment of the Project's impact to EV, potential impacts to elk populations within the Project area cannot be known and compared across the Project's alternatives.

Suggested Remedy

The Forest should withdraw the DROD and reassess direct, indirect, and cumulative impacts of the Project on elk vulnerability and security using the Servheen guidelines, at a minimum, and recent literature, and updated information generated by the Forest since 1997.

Failure to Complete Annual Monitoring Reports

The Forest has failed to comply with the 1987 Forest Plan monitoring report requirement since 2004.

The Nez Perce Forest Plan ("Plan") requires the Forest to develop an annual monitoring program in accordance with its monitoring requirements and to annually evaluate the results and trends from its annual monitoring in a separate report. Specifically, the Plan requires monitoring of the following:

* acres/number of fish habitat improvements
* soil and water rehabilitation and improvements
* fish habitat trends by drainage
* impacts of management activities on water quality
* effectiveness of specific water quality mitigation measures
* impacts of management activities on riparian areas
* acres of big-game habitat improvements
* big-game habitat carrying capacity
* nongame habitats
* population trends of indicator species-wildlife and fish
* effectiveness of wildlife habitat protection standards
* Animal Units Months grazing permits
* mitigation measures used for and impacts of transportation facilities on resources
* adequacy of transportation facilities to meet resource objectives and user needs
* wildlife, water quality, fisheries, timber; and the maximum size of opening for harvest units
* allowable sale quantity by components
* acres timber harvest by method
* acres and numbers of wildfires
* off-road vehicle impacts
* adequacy of cultural resource protection, impacts on cultural resources
* limits of acceptable changes in Wildernesses
* achievement of visual quality objectives
* vegetative response to treatments
* impacts of management activities on soils
* adequacy of Mining Operating Plans and Reclamation Bonds
* costs of implementing resource management prescriptions
* Forest resource-derived revenues
* acres of harvest land restocked within 5 years
* unsuited timber lands examined to determine suitability
* maximum size of openings for harvest units
* insect and disease activity
* effects of National Forest Management on lands, resources, and communities adjacent to the Forest
* effects of other Government agencies' activities on the National Forest
* validation of resource prediction models; wildlife, water quality, fisheries, timber

The Tribe's 1989 settlement agreement with the Forest, as reflected in 1987 Forest Plan Amendment No. 7, also requires inclusion of the following in the Forest's annual monitoring reports:

[T]he Forest will display for each Timber Sale Decision Notice signed during the reporting fiscal year, the following information: the summer elk objectives; preharvest level of elk habitat effectiveness; and the level of elk habitat effectiveness under the preferred alternative.

The Forest Service shall develop in collaboration with the Tribe, a methodology for randomly selecting half of the Forest Service's land disturbing activities for evaluation of elk habitat effectiveness.

a general description of how well the other wildlife habitat protection standards have been met... Specific sales where the interdisciplinary process has failed to address or meet any of the other wildlife habitat protection standards in the integrated management planning process will be identified along with the failed standard.

Amendment No. 8 to the 1987 Forest Plan requires the Forest to track forage production Forestwide and wildlife population data annually. Tracking of forage production forestwide will be done by annual evaluation of accomplished forage producing actions including timber harvest, prescription bums, and wildfires. Trends in production based on 5 years of data will be the measure, rather than annual production. Population data will be collected annually. Pileated woodpecker population trends will be evaluated using an index of relative abundance. An attempt to obtain indices to forbearer populations (fisher, marten) will be made by establishing track[shy] transects or scent-post lines. Population monitoring of goshawks, pine marten, and fishers will be done using active nest monitoring and track counts.

For the Nez Perce National Forest, there has not been a monitoring report published since 2003- 2004. The Forest has published other monitoring reports, but they are not comprehensive and only address a few of the monitoring efforts required by the 1987 Forest Plan. These non-Forest Plan monitoring reports include: the 2016 PACFISH Buffer and Temporary Road Monitoring Report, timber sale observation reports, suction dredging monitoring reports, and 2012 Nez Perce National Forest Wildlife Report, which only covers acres of big-game habitat improvements and population trends for indicator species. The Forest has also completed some monitoring in accordance with the PacFish/InFish Biological Opinion Monitoring Program. For the Clear Creek Project specifically, the Forest completed the Clear Creek Aquatic Habitat Condition Assessment and Fish Population Monitoring Report, which was written specifically to assess baseline conditions in the Project area in 2015 and 2016. This Report will prove very helpful in the future for comparing pre-project habitat conditions with post-implementation conditions. However, this Report alone does not comply with the Forest Plan monitoring requirements for the Project area, let alone the entire Forest; it does not on its own develop fisheries condition trends, validate Forest resource prediction models, or monitor insect and disease activity in the Clear Creek Project area. It also did not ensure that vital baseline stream temperature data was collected and reported in the Project FSEIS.

The Forest has failed to develop an annual Forest Plan monitoring program, to release annual Forest Plan monitoring reports, and to annually evaluate the results and trends from the Forest Plan monitoring for the past 17 years. The Forest's lack of Forest Plan monitoring has seriously hampered its ability to engage in on-Forest adaptive management and has resulted in the Forest defaulting to outdated information and models that don't necessarily address current ecological conditions. Budgetary constraints alone cannot excuse this delinquency. And, if budgetary constraints have been at play, the Forest has failed to compensate by developing a different

course of action, as required by the 1987 Forest Plan.

The Forest has continued to carry out projects in violation of the 1987 Forest Plan's annual monitoring requirements. The Clear Creek Project is simply one example. This failure violates the 1987 Forest Plan and the Forest's 1989 settlement agreement with the Tribe and has precluded adequate environmental analysis of this Project.

Impact on Fisheries Analyses for this Proiect

The Project analyses would have benefitted from consistent Forest Plan monitoring reports describing aquatic effects over the last 17 years in the Clear Creek Watershed, including fish habitat trends by drainage, acres/number of fish habitat improvements, soil and water rehabilitation and improvements, validation of resource prediction models for water quality and fisheries, insect and disease activity, and impacts of management activities on water quality. The Project's analysis would have especially benefited from long-term fisheries habitat trend information by drainage.

Because the Forest has not completed annual monitoring of a significant number of fisheries resource-related environmental effects on the landscape, neither the Forest nor Tribe is able to accurately understand the true impact of the Project on fish.

Impact on Wildlife Analyses for this Project

Had the Forest maintained population data monitoring annually as required, the Project analyses would have been substantially improved. Amendments to the Plan's monitoring requirements associated with elk habitat management were not implemented, resulting in the use of outdated and discredited methodologies. Annual reports may have also highlighted data and modeling deficiencies associated with wildlife indicator species and compliance issues associated with the Forest Plan's numerous habitat protection standards. The FEIS lacks the population index data for fisher, marten, and other wildlife species, and the FSEIS, published six (6) years after the FEIS, lacks updated population data for most of the wildlife species with specific 1987 Forest Plan monitoring requirements. For example, the FSEIS states that "[h]istorical records show no fisher detections in the Project Area, however, 11 records of sightings or sign outside the Project Area were found between 1982 and 2005." The 2019 Idaho Fish and Wildlife Information System, on the contrary, shows four (4) fisher observations within the Project area.

Suggested Remedy

The Forest should conduct the monitoring required by 1987 Nez Perce Forest Plan within the Project area as well

as Forestwide. The Forest should summarize and evaluate elk-specific monitoring data to inform this Project and subsequent projects developed by the Forest as well as opportunities to refine and enhance impact assessment models for elk. The pre- and post-Project monitoring required by the 2017 Biological Opinionshould help the Forest comply with some of its Forest Plan monitoring requirements for fish for the Project area. The Forest will have to conduct additional wildlife monitoring to achieve compliance with the 1987 Forest Plan.

Failure to Comply with the Clear Intent and Plain Language of the Forest Plan's Upward Trend Mandate

The Forest's interpretation of the 1987 Forest Plan, Appendix A, upward trend mandate is clearly erroneous because it is contrary to the restorative purpose of the mandate.

In order for timber management to occur in prescription watersheds not meeting Forest Plan water quality objectives, Appendix A of the 1987 Forest Plan requires that an upward trend in habitat carrying capacity be indicated.177 Appendix A specifically states: "Sediment is the primary limiting factor in these streams. Improvements will be scheduled between 1986 and 1995. Timber management can occur in these watersheds, concurrent with improvement efforts, as long as a positive, upward trend in habitat carrying capacity is indicated."

The upward trend mandate was included in the 1987 Forest Plan in order to ensure that prescription watersheds degraded by past timber management activity began to show improvement. Almost 30 years later, sediment continues to be the primary limiting factor in these watersheds. The Forest spelled out its interpretation of the upward trend mandate in its 2011 guidance for implementing 1987 Forest Plan Appendix A:

Upward trend means that stream conditions that are below the Forest Plan objective will move toward the objective over time. Stream specific determination of existing condition and present or future improving trend should be done through a convergence of evidence using stream surveys, monitoring results, watershed condition inventories, literature reviews, predictive modeling, and professional judgment. It must be demonstrable that an improving trend is either in place and will continue, or that an improving trend will be initiated as a result of past, present and future management activities. The Forest Plan did not specifically intend that the improving trend be in place prior to initiation of new activities. It also did not specify a time factor for achieving fish/water quality objectives in below objective watersheds.

It was assumed in the Forest Plan that implementation of instream restoration and other watershed restoration activities would result in an upward trend in carrying capacity. Where these activities have been implemented, it could be stated that an upward trend in the habitat conditions has been accomplished. In previously degraded watersheds, especially those identified as below objective in 1987, if there have been no entries or natural disturbances over the past 10 to 20 years, it could be assumed that trend is either static or improving. If any watershed restoration has been implemented, or if a change in management (e.g., grazing and roads management) has resulted in fewer potential adverse effects to streams, an upward trend could be assumed in these cases as well.

The Forest's interpretation of the upward trend mandate 1s clearly erroneous because it fundamentally undermines the mandate's restorative purpose.

First, the Forest's statements that "the Forest Plan did not specifically intend that the improving trend be in place prior to initiation of new activities" and "[i]t must be demonstrable that an improving trend is either in place and will continue, or that an improving trend will be initiated as a result of past, present and future management activities" provides no time period in which an upward trend must be shown and thus no limit on further degrading activities, such as timber management.

According to the Forest' s interpretation, if a trend is not already in place, it must simply show that one will be initiated at some point through "past, present and future management activities" (emphasis added). Under this interpretation, the point at which an upward trend was established could always be in the future. Accordingly, the Forest's interpretation offers no guarantee that degraded watersheds will ever recover, the clear goal of the 1987 Forest Plan's upward trend mandate.

The only logical interpretation of the Forest Plan's language, "[t]imber management can occur in these watersheds, concurrent with improvement efforts, as long as a positive, upward trend in habitat carrying capacity is indicated' is that prescription watersheds must show an improvement before initiation of new timber management activities (emphasis added). The presence of an upward trend is a clear condition precedent of timber management.

Second, the Forest's statement that "in previously degraded watersheds, especially those identified as below objective in 1987, if there have been no entries or natural disturbances over the past 10 to 20 years, it could be assumed that trend is either static or improving" (emphasis added) does nothing to help the Forest determine whether an upward trend is present in degraded in the Clear Creek Watershed's prescription watersheds. This is because a lack of management entries simply suggests that a watershed's habitat trend is either "static" or "improving." Additionally, natural disturbance has occurred in the Clear Creek Watershed within the last two (2) years, during the 2019 flood event. Thus, the Forest cannot assume that the Clear Creek Watershed's trend is either static or improving in all prescription watersheds.

According to Merriam Webster Dictionary, "static" is defined as "showing little or no change, action, or progress." In turn, "positive" is defined as "contributing toward or characterized by increase or progression" and as "affirming the presence especially of a condition, substance, or organism suspected to be present." Finally, "upward" is defined as "toward a higher or better condition or position." It is also useful to note that the meaning of "static" is at odds not only with the meanings of "positive" and "upward" but also with the meaning of "trend" which is defined as "to show a tendency" and "to extend in a general direction" or "follow a general course." Because something static is showing little or no change, action, or progress, it is difficult to imagine "a static trend." "A static trend" is also at odds with the Forest Plan's plain language describing an upward trend as "a positive, upward" trend.

Third, the Forest's interpretation of the conditions in which an upward trend can be found is also erroneous. The Forest relies on the idea that its instream restoration or other watershed restoration activities will necessarily result in an upward trend in carrying capacity. This belies common sense. It is simply not analytically sound to assume that an upward trend is occurring in every degraded prescription watershed where any instream or watershed restoration activities have occurred, regardless of what other management activities have taken place.

The Forest's 2011 interpretation of the 1987 Forest Plan's upward trend mandate constitutes an end run around the clear intent of that mandate and a post hoc rationalization for pre-planned management activities in prescription watersheds that have never recovered from past timber management activities. The Tribe believes that in order for the Forest to comply with the 1987 Forest Plan's upward trend mandate, it must show, using monitored instream watershed condition data, that an upward trend is occuring in all prescription watersheds not meeting Forest Plan water quality objectives.

Suggested Remedy:

The Forest should provide data-from in-stream surveys or other watershed condition monitoring efforts-that demonstrate that an upward trend is currently occurring in the Clear Creek Watershed's Pine Knob Creek, Middle Clear Creek, South Fork Clear Creek, Hoodoo Creek, and Clear Creek prescription watersheds.

VII. Conclusion

The FSEIS states:

The Responsible Official has the option of applying all or part of the modifications to any action alternative as part of the decision. As noted previously, Alternative C was chosen for modification because it proposes the most potential disturbance within the project area. Application of the modifications to any of the other action alternatives would result in even less potential impacts.184

The Tribe firmly believes that the Clear Creek Project must have fewer potential impacts than those predicted for Alternative C Modified. The Tribe, therefore, again requests that the Forest develop, analyze, and select Alternative D Modified. Ideally, Alternative D Modified would exclude all 53 units Tribal staff determined were at high risk of sediment delivery to prescription watersheds (and any new road construction or reconstruction associated with those units). At minimum, the Responsible Official would apply all the harvest unit modifications she made to Alternative C to Alternative D to create Alternative D Modified. Alternative D Modified would also make significant scientifically-informed adjustments to the Project design to improve elk security.

Pursuant to 36 C.F.R. [sect] 218.1 l(a), the Tribe hereby requests an objection resolution meeting.

Sincerely,

Samuel N. Penney Chairman