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Organization:

Title:

Comments: I am commenting on the SGP - SDEIS.

I have 20 years of extensive experience as a Watershed Restoration Crew Boss out of the Krassel District Office and Supervisor's Office on the Payette National Forest in the years from 1993 through 2013.

I have spent many weeks, many hundreds of hours, many nights camping at the Stibnite mine area, leading FS crews on the ground in restoration efforts which include Meadow Creek stream channel relocation and rebuilding and associated stream bank revegetation; Blow Out Creek slope stabilization; leading riparian planting crews (trees and shrubs) in revegetation efforts at Stibnite; hauling and distributing slash (woody debris) for plant shading and nutrient recycling; seed harvesting of local shrubs for reclamation propagation; extensive hydro-mulching seeding and fertilization operations at the Stibnite mine site and all along the EFSF Salmon River corridor; trash and low level hazardous waste removal.

I have extensive experience in supervising forest road stabilization and restoration crews; post-flood emergency response dealing with all manner of sedimentation threats; road closure and stabilization for long term hydrologically benign timber harvest road prism preservation; forest road deconstruction with heavy equipment to re-contour and obliterate target roads, using excavator decompaction and transplanting techniques plus local slash along with supplemental seeding for accelerated restoration. I have extensive experience in leading heavy equipment crews in fish barrier and deep culvert removal and recontouring/removing/stabilizing the stored road fill and sediment once removed from atop the culverts, while rebuilding a hydrologically functioning stream channel throughout the drainage, and completing revegetation of related disturbed soils, all the while controlling/preventing sediment delivery to the channel.

Based on my professional experience and training and years long presence leading restoration efforts at the Stibnite mine site and surrounding watersheds, and other watersheds throughout the 5 districts on the Payette NF as well as special projects on the Boise NF, I wish to share insightful comments on the SGP SDEIS.

Fisheries - Soil and Vegetation Degradation

The SFSR ecosystem once was a thriving home for steelhead, salmon, bull trout, and cutthroat trout, all now dwindling towards extinction.

Question: Perpetua says this is a watershed restoration project, so why does the SDEIS show that stream temperatures will reach lethal levels for salmon and trout? SDEIS pg. 2-146, 4-280.

I can tell you why stream temperatures will reach lethal levels in the Meadow Creek and Upper EFSF SR streams:

For one reason, it is extraordinarily difficult and slow to hoe-dad or auger plant riparian shrubs and trees in the Meadow Creek riparian zone in denuded, seriously compacted granitic ground without any tilth (self-mulching attributes) whatsoever, and where there is little shade. This will only worsen if the valley is stripped bare again and then to start over. This ground (I'm not willing to characterize it as soil) has been found to have extremely high levels of arsenic and in the root zone of transplanted shrubs and trees this is frequently lethal due to phytotoxicity. I have taken planting crews back to Stibnite over and over again in years past, and from year to year, all of these deficits lead to very disappointing survival rates. The transplants fail to thrive and then die because of harsh conditions: serious compaction, wide open planting areas with little to no shade, toxicity in the root zone, and lack of nutrients in planting media coupled with harsh weather, short growing seasons, and

unpredictable rainfall. This is my experience in restoration planting at Stibnite. Stibnite project area has some of the harshest planting conditions I have ever experienced in 20 years of restoration work. It is clear that extremely slow regeneration of vegetation in the Meadow Ck and Upper EFSF allows stream temperatures to rise to fish threatening levels. It is expected this will continue for 100 years or more.

Question: Will Perpetua even be in existence 50 to 100 years from now? Will Perpetua (as their name seems to imply) send in planting crews several times a year decade after decade in perpetuity to maximize the rate and success of temperature lowering revegetation efforts.

The DSEIS accurately observes there is an enormous deficit in growth media used in all reclamation plans across the site and project areas.

Question: Where will the quality and adequate quantity growth media come from that is required for successful and rapid revegetation that has any possibility of slowing the rise of stream temperatures in the SGP? How will it be certified as being adequate for restoration revegetation?

#### Wetlands

Both Alternatives would result in the loss of 120 acres of diverse, high functioning wetlands within the mine site and 619 acres of riparian areas.

Within the mine site itself, a major proportion of the wetlands and riparian areas that would be lost will be within the upper Meadow Creek valley. This previously undisturbed and high-functioning wetland is slated to be the site of the SGP tailings dump where millions of pounds of mine waste will inundate the valley floor. This toxic mine waste will sit between a synthetic liner that is designed to prevent clean water infiltration and contamination while at the same time isolating the entire tailings facility footprint from the water table, diminishing the impacts of any 'reclaimed' wetlands that will be constructed on top of this liner system. Such a liner is interrupting wetland function by definition. This is blatantly dishonorable and false to call this reclamation! This impermeable membrane liner serves only to isolate mine tailings, it would not enhance wetland function. This is an absurd assertion by Perpetua.

Question:

Where is the study data that would answer the question as to the durability of the liner; "normal" rates of deterioration, degradation and perforation that would allow water to infiltrate the impounded tailings and leak out the bottom or sides into the ground water? How many months or years before that inevitable degradation occurs?

#### Water Quality and Quantity

Groundwater will suffer from an increase in analyte concentrations from the leaching of development rock. However, the argument for allowing this degradation in water quality is that "existing groundwater in those areas typically does not meet regulatory criteria for use as drinking water due primarily to arsenic and antimony concentrations," (p. ES-15). Existing degraded water quality should not be used as a rationale for activities that further pollute groundwater in the area. This could not be more obvious!

Expected that the groundwater levels will be reduced as a result of pit dewatering and the creation of impermeable liners under the Yellow Pine, West End, and Hanger Flats pit areas. Additionally, the same liner system will be used under the tailings storage facility (TSF) and TSF buttress which will permanently remove six wetland areas within the mine site. This alteration in groundwater connectivity is expected to have adverse impacts on flow and groundwater recharge of streams and wetlands in the project area.

Forest Service acknowledges that due to the required drawdown of the site water table, indirect impacts to wetlands and groundwater recharge of streams may be greater than anticipated or what has been documented in the SDEIS.

Sedimentation as it relates to Water Quality and Fisheries and Infrastructure:

I know from personal experience that mass sedimentation events are common on the Payette National soils are prone to move big time when saturation points occur when heavy snow run off, heavy rain events, or rain on snow events occur. These are quite common in the Salmon River country. Often when these mass soil movements from slumps, road prism failure, and other saturation events occur, culverts of all sizes from typical 18" to very large 8' and much larger culverts and even bridges are known to plug up, failing to keep water in the drainage channels and off of road infrastructure.

Especially when climate change has been factored in (which appears not to have been in this SDEIS), these events likely will become more frequent and intense.

Example:

There was a heavy rain on snow event on Jan 1st, 1998, with mass soil movements that plugged scores of large culverts on the Payette NF and obliterated road prisms in many areas. One notable area was Buckhorn Creek Road (a tributary of the SF Salmon River). From the heavy rain pouring down, melting the snow, sediment laden water raced downhill to plug huge culverts and flowing down the Buckhorn Rd in great gullies, delivering a huge plug flow of sediment into the SF Salmon River. The reclamation of this one drainage took several years and caused the abandonment of the road, which became a road to trail conversion. This, and many of my experiences of other events of mass soil migration events on the Payette NF, disrupting and destroying man made infrastructure intended to keep water flowing in a "controlled manner", and the failure of these structures to function under extreme overload conditions leads me to ask this very relevant question:

Question:

Where is the study, that also includes climate change modeling, that addresses the likelihood that Perpetua's constructed mile long fish passage tunnel could withstand such mass soil movements that could severely compromise or completely plug up this fish passage tunnel and render it incapable of allowing water, not to mention fish to move and maintain connectivity to the watershed channel above and below the tunnel?

If this tunnel plugs severely, in no time at all water will bypass the entrance of the tunnel and follow any available fall line, and rip through soils that could be contaminated with toxins, and gully and flood on down the EFSR drainage, possibly destroying infrastructure along the way that could be devastating, as well as causing this fish passage connectivity safety net to implode? I say, get real here folks... relying on an unproven mile long fish tunnel to function for decades and save fish and connect to viable habitat, is boarding on delusional! When the heavens open up, this tunnel will fail. Big time! Repairs would take years, dooming fish restoration efforts and causing widespread contamination and sediment flows.

What are the details of the emergency response plan for such a likely occurrence related to this potential wishful exercise?

Transportation Impacts - Risks and Hazardous Materials

Suffice to say I feel it is absurd for the authors of the SDEIS not to have addressed in any significant manner the impact of this massive SGP on the state and federal highway systems beyond the Warm Lake Road/Hwy 55 junction. Heavy truck traffic coming from these highways 55/95 and feeding out into these highways systems and the towns, cities and waterways along the way; increasing traffic density with slower moving heavy vehicles; absorbing high impact infrastructure wear and tear; increased accident potential; toxic spills of diesel and chemicals; impacts on emergency response hospitals. Again, this would all originate from the SMP.

Question:

Why has this obvious and enormous impact been ignored, and side stepped by the authors of this SDEImpactStatement??

Is Perpetua willing to pre-pay the real dollar costs of these impacts for decades on down the road?

Would Perpetua prefer that the municipal, county, state and federal taxpayers' foot the entire bill and absorb these impacts while they stay silent on this issue, and look the other way? Would they like this be our cost of their doing business?

Wild and Scenic Rivers Act - Clean Water Act - Endangered Species Act

Question:

Has Perpetua meticulously followed the intent and letter of the law under the Federal Acts listed above?  
If not, what is Perpetua's justification for ignoring the will of the American people?

Quality of Life - Recreation

Question:

If the SGP has a net effect of degradation of water quality, air quality, wetlands, riparian zones, fisheries and wild life, transportation issues, carbon footprint, soil and vegetation, hazardous materials exposure, tribal rights (which in many cases the authors and the Forest Service admit to in the SDEIS) -in pursuit of gold, which is not a critical mineral need in the United States (it is mostly sold for people to collect and hoard), what then is the justification for the negative environmental impacts the SGP would absolutely bring to publicly owned lands, it's inhabitants, citizens and visitors, Valley County, municipalities in central and south west Idaho at a minimum, by agreeing to an operating plan that is completely inadequate to mitigate these severe environmental impacts that would carry on for decades or hundreds of years?? In my view it is unconscionable to offer unjustifiable, justification. For the land and the people, not to abuse the land and the people in order to pursue a bad idea.

Power Lines Construction - Burt Log Road Construction

The power line construction along the Burnt Log proposed road opens up such a can of worms to recreation and motorized vehicle abuses, wildlife harassment and habitat fragmentation, noxious weed introduction, road closure & law enforcing, revegetation issues, stream sedimentation, fire hazards, threatened species impacts, roadless area incursions, winter & year long road maintenance, avalanche hazards, toxic spills, heavy mine traffic and recreation traffic conflicts, road closure enforcement. What a nightmare. At a time when many jobs are unfillable, who will deal with all the response need by this SGP segment of demand?

Tribal Rights:

Have all Treaty Rights been meticulously followed in the SGP proposal?  
If not, why not?

In conclusion I ask that the

"NO ACTION ALTERNATIVE" be selected for the SDEIS as it relates to the Stibnite Gold Project.

This is simply the worst possible location for such a mining operation. The plan is completely inadequate.

Sincerely,

William 'Ned' Fowkes