

October, 8, 2018

Stanislaus National Forest
Jason Kuiken, Forest Supervisor
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Subject: Comments on Stanislaus OSV Designation

Dear Supervisor Kuiken and Forest Planning Team:

Thank you for accepting my personal comments on the Stanislaus National Forest (SNF) OSV Designation Project, and thank you for your efforts in assembling and organizing the extensive DEIS for this challenging project.

At the outset here, I would like to be clear in expressing my preference for Alternative 3. As it stands now among all the action alternatives, Alt 3 is most rounded, and it most faithfully suits SNF's Forest Plan. Alt 3 presents what looks to me as sustainable compromises, making it the wisest investment in the long term for all concerned.

Additionally, I find various aspects of the other action alternatives (Alts 1, 4 & 5) potentially very problematical. Alternatives 1, 4 and 5 each cancel to some extent the protection provided in SNF's 1991 Forest Plan for Near Natural Areas and (in the case of Alt 4) protection of proposed wilderness additions. No less troubling is the rationale for these potential retrograde changes: the fact that previous "historical" disregard has habituated OSV motorists to routine use of ostensibly protected terrain.

I also have some concerns about the analysis contained in the DEIS, and a few suggestions which I hope will improve the outcome of whichever alternative is finally selected.

I have five principal concerns with the DEIS generally, outlined as:

- a) The analysis is focused nearly exclusively on OSV use acreage rather than considering the additional metric of time (hours / days) of (more or less) OSV use resulting from the different features of each alternative.
- b) Failure of the DEIS to recognize or account for (i.e. minimize or mitigate) the potential forest impacts particular to Single-Skid OSVs (SSOSVs), the narrow, in-line OSV configurations commonly called "Timbersleds" or "Snow Bikes."
- c) Incomplete analysis of chemical pollutants spread by OSVs - particularly the polycyclic aromatic hydrocarbon (PAH) component which, unlike Volatile Organic Compounds (VOCs), do not readily vaporize once deposited in or on the snowpack.

d) Inadequate rationale in the DEIS for proposed abandonment of Forest Plan limits on designated Near Natural Areas.

e) Two prominent errors which deserve correction.

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I have three concerns about the Proposed Action (Alt 1), outlined as:

1) Inadequately protective snow depth minimum of 12" (except for Stanislaus Meadow).

2) Snow season abandonment of motor vehicle prohibition across more than 13,000 acres of designated Near Natural Areas.

3) Failure to isolate from OSV impacts a variety of venues long favored by forest visitors seeking wholesome forest recreation.

4) Abandonment of NNA protection on the surroundings of Sonora Pass - which reduces conformity with OSV controls established by the Humboldt-Toiyabe National Forest for the Bridgeport Winter Recreation Area (BWRA) adjacent to terrain on SNF's Summit Ranger District.

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Following are details about the concerns I've outlined above.
Referring to the DEIS analysis generally:

Regarding concern 'a':

SNF's OSV DEIS seems to 'think' only in acres of OSV use. Had the DEIS considered the additional metric of total *hours* / *days* of allowed OSV activity in addition to total acres of designated OSV terrain, the analysis would have been more informative. Particularly with respect to the snow depth discussion and the value of OSV seasonal limits as additional controls during periods when forest resources are generally most vulnerable to industrial-scale (OHV & OSV) impacts - the shoulder seasons.

Hours of OSV use (forest-wide, district- or area-wide, per day, and cumulatively, per month and per season) will vary according to the various provisions of each alternative. That being the case, it would be useful to overview what might be called the temporal advantages or disadvantages of each alternative.

A temporal perspective could further illuminate the tradeoffs in OSV opportunity vs resource protection and other types of forest recreation during snow season. I suspect that such analysis would likely credit the utility of OSV season limits as a valuable tool, along with standing snow-depth minima, to prevent avoidable OSV injury to forest

resources, and to more effectively disengage (not just distance) vehicular recreation from quiet seekers.

Suggestion:

I would prefer to see the DEIS revised to include this additional temporal perspective. Nevertheless, I will assume here that it is now too late for SNF to adopt this suggestion. Without such additional analysis, I suggest adopting Alt 3 to obtain the additional protections it offers.

Regarding concern 'b':

In neither volume of the DEIS did I find mention of Single-Skid OSVs (SSOSVs), the modified motorcycles, Timbersleds / 'Snow Bikes', which increasingly ply snows on SNF. Rising use of SSOSVs should be acknowledged, and, further, these vehicles should be evaluated as a separate class of OSV due to their particular traits such as extraordinary (no standard) sound emissions, as well as SSOSVs' capacity to etch potentially very deep ruts into ever more confined and 'hard to tag' forest nooks (aka isolated forest habitats).

SNF is empowered to regulate OSVs by vehicle class even though SNF apparently has chosen not to do so. Inexplicably, the DEIS seems blind to the unique characteristics of SSOSVs. Because they are narrower than snowmobiles yet also have a high ratio of power to weight, SSOSVs are able to penetrate forest terrain where snowmobiles either won't fit or may be prone to get pinned or stuck.

Thus, SSOSVs expand the variety of forest terrain which is subject to impacts of motorized use. This is especially problematic because, as a result of their in-line design, SSOSVs generally etch the snowscape with ruts which are typically both narrower and deeper than those etched by a snowmobile outfitted for off-trail x-c use. That fact further challenges the wisdom of eschewing fully protective snow depth minima (such as on the surroundings of Highland Lakes).

No less concern is that while snowmobiles do have a voluntary industry-wide noise standard (albeit basic), purpose-built SSOSVs and modified motorcycles are subject to no limits on their exhaust or sound emissions as far as I can tell. I will attest here from personal experience that some SSOSVs issue sound levels so intense as to cause bystanders to experience physical pain. That fact by itself should be sufficient to warrant extra controls on these newer snow vehicles which, for purpose of management, meet the definition of an OSV.

Suggestion:

My suggestion in this case is to rework the Proposed Action to apply special restrictions on the use of SSOSVs in order to confine their use to select locations which are least vulnerable to their extraordinary impacts. Add the 24" snow depth provision to the Highland Lakes area or, otherwise, please adopt Alt 3 to obtain the additional protections it offers.

Regarding concern 'c':

Along with my scoping comment to SNF dated August 9, 2015, I prepared and offered a document (pdf) titled "*Information Published by the American Council of Snowmobile Associations is Unreliable*" wherein I examined (among other things) the unique problems associated with the component of typical OSV exhaust identified as polycyclic aromatic hydrocarbon (PAH).

In so doing I referenced a two-year study of the effects of OSV emissions of Volatile Organic Compounds, aka VOCs, (Arnold and Koel, 2006). Arnold and Koel concluded their study with a warning that, despite the relatively minor concentrations of VOC detected in flowing snowmelt, the potentially much more severe impacts of PAH require evaluation. (Arnold and Koel did not attempt to measure PAH during the course of their study).

SNF's DEIS references this same study and so should be aware of the authors' warning. SNF's DEIS also references the 2015 study by McDaniel and Zielinska of PAH delivered to snowpack and snowmelt by OSV recreation activity. Oddly, the import of the latter study seems to have escaped analysis.

Of concern is the fact that McDaniel and Zielinska showed that PAH concentrations in snowmelt flowing from the studied OSV use area were eight times greater than background levels found in snowmelt where OSV use does not occur. Moreover, among the OSV-emitted PAH identified by McDaniel and Zielinska are compounds which are known carcinogens and teratogens (which may derange embryonic development in exposed wildlife). In the context of Arnold and Koel's warning about PAH, McDaniel and Zielinska's work deserves more careful scrutiny in the DEIS. Unfortunately, I did not find any other study referenced in the DEIS which scrutinized the PAH delivered to forest land and waters by OSV activity.

Suggestion:

Without more complete analysis of the deleterious effects of PAH on fish and amphibians (and perhaps other wildlife), I suggest that SNF adopt Alt 3 to obtain the additional protections it offers.

Regarding concern 'd':

"Troubling!" is what I think of SNF's proposal to forfeit specially protected terrain for appeasement of specialty motorists who have "historically" overrun mapped and established limits on SNF such as those appearing on the *Summit Ranger District Winter Recreation Guide* (2003). Troubling, if not in its reward to those who disregard the basic elements of Tread Lightly!, then, perhaps for the proposal's lack of ingenuity before rewarding noncompliance in this way.

Suggestion:

If SNF seeks to green-light OSV's onto protected terrain to fulfill the project's purpose, one readily available mitigation would be a requirement that OSV motorists obtain, prior to entering newly authorized (previously protected) terrain, a self-issued day-permit. Permit forms could be made available at specified trailheads or even on-site, at NNA boundaries. If, after a few seasons, compliance from unbound OSV motorists is exemplary*, the permit requirement can be suspended in reward for continued compliance. Otherwise, the permit privilege may be reinstituted or may be revoked entirely, as appropriate. My guess is that this OSV day permit suggestion would result in more attentive motoring and would simply the (always challenging) task of enforcement.

*exemplary in this case might be that OSV motorists consistently prove that 12" of snow pack is indeed enough to reliably prevent OSV contact with native soil, vegetation, or flowing or standing water.

Regarding concern 'e':

Apparent error 1:

The DEIS indicates that terrain in the neighborhood of Sonora Pass is 26 miles from the nearest trailhead. In fact, Sonora Pass is, in mid winter, 10 miles from the 'People's Gate' (eastside) trailhead at Hwy 108. I have personally, on skis and under my own power, accessed the PCT on SNF at least six times via this route. SNF's FEIS for this project should be corrected in this regard.

Apparent error 2:

The apparent error on Pg 1 of Vol 2 proved distracting, especially since the error appears in the column for the "Modified Proposed Action," which appears to be an additional (extra) descriptor for Alt 1. The table there at the outset appears to suggest that the "modified" Proposed Action (presumably Alt 1) employs a uniform 12" snow depth across all OSV areas. That is, it indicates that the "Modified Proposed Alternative" abandons entirely the limited 24" requirement described elsewhere for Alternative 1. Again, SNF's FEIS should be corrected in this regard.

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Referring to Alt 1 specifically:

Regarding concern '1':

The snow depth standard proposed by SNF, which is expressed repeatedly throughout the DEIS, is:

"Cross-country over-snow travel, by vehicles designed specifically for that purpose, is permitted when there is 12 or more inches of snow and no contact is made with native soil or vegetation."

It appears that this terse standard consists to two separate requirements:

- i) an objectively measurable minimum depth of snow which overlies some type of terrestrial substrate such as road bed, rock, semi-frozen wetlands, natural snow 'bridges', lava caps, willows, chaparral root crowns, etc.), and
- ii) a supplementary requirement that every OSV operator steer clear of and avoid unsupportive variations in snow cover or exposed vegetation which may result in contact with native soil or vegetation.

Here is a photograph I recorded on the drainage of upper Leavitt Creek (on HTNF's BWRA). While not on SNF, this area is close to NNA on SNF's Summit RD:



As I understand SNF's proposed snow depth rule, the OSVs which overran this stand of willows (had they been situated on SNF) would have been in violation insofar as vegetation contact (if not damage) has occurred. If my understanding is correct, SNF's proposed 'no contact' provision for OSVs is valuable if it indeed succeeds in reducing this sort of avoidable injury to forest resources.

Now, in addition to SNF's one-sentence snow depth rule, the DEIS elsewhere indicates that OSV contact with flowing or standing (liquid) water will not be permitted. Though appearing separately within the DEIS, this amounts to a third requirement in SNF's snow depth standard.

For purpose of illustration, this next image is a frame-grab from a video posted to the Snowest.com snowmobile forum. I don't know where the video was recorded, but it

looks pretty close to what I see on eastern reaches of SNF, and the snow in this case appears to be very close to 12 inches deep.



This image makes a useful illustration in any case because it shows - from the helmet cam perspective of a prowling SSOSV motorist - a forerunning ski track (upper right, in shadow) which has been freshly overrun by a snowmobile right after the vehicle had muddied the meltwater creek. In pursuit, the SSOSV motorist will further muck the muck. Hopefully SNF's additional prohibition of OSV contact with flowing water will serve reliably to prevent this sort of degradation of forest wild land.

Suggestion:

Considering the known undesirable outcomes of OSV engagement with vulnerable wetlands, SNF's snow depth standard should more expressly forbid OSV contact with standing or flowing waters in addition to native soil and vegetation. That is to say that *the complete set of snow depth requirements / limits should be set forth all together as a comprehensive rule which OSV motorists must abide*. The day permit suggestion I offered earlier (under concern 'd') would help to effectuate SNF's comprehensive snow depth requirement.

Regarding concern '2':

My concern about SNF's proposed abandonment, during OSV season, of the motor vehicle prohibition on 13,000+ acres of Near Natural Areas has already been expressed with reference to the DEIS generally. Though Alt 1 appears to be thoughtfully crafted in general, this particular feature makes Alt 1 very hard to swallow.

My suggestion in this case is to eliminate the OSV allowance on NNA from Alt 1, or, instead, to adopt Alt 3 to secure the additional protection it offers.

Regarding concern '3':

I was disappointed to discover that terrain which has historically been very popular for quiet-seekers on SNF receives, in some cases, no protection from impacts of OSV use which is planned either to overlap such areas or to be designated in close proximity. A remarkable example of this is the terrain including Osborne Hill and the immediate surroundings of Lake Alpine.

My suggestion in this case falls back to Alt 3, which much more thoughtfully preserves pedestrian opportunity around Osborne Hill as well as locations such as Herring Creek road and Mattley Ridge.

Regarding concern '4':

Near Natural Terrain in vicinity of Sonora Pass is to receive no protection from OSV impacts apart from the minimal provision offered in Alt 5. This is troubling because the Humboldt-Toiyabe NF invested considerable effort in crafting rules for sustainable OSV use on the Bridgeport Winter Recreation Area, and SNF's proposed action is likely to undermine those rules. The HTNF rules were respectful of SNF's NNA designation on the area - so much so that the HTNF even routed OSV traffic across the PCT and down to Hwy 108 expressly to avoid sending OSVs onto the adjacent NNA terrain (which holds part of the PCT) on SNF's Summit Ranger District. It seems that SNF should return the courtesy.

My suggestion in this case is (as per my earlier recommendation) to prevent OSV use on NNA's, particularly in vicinity of Sonora Pass. If not that, then at least honor the seasonal OSV restraints applying on the neighboring forest terrain (such as the provision in Alt 5). Lacking that, I recommend again adoption of Alt 3.

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Finally, as I expressed in my scoping comment on the project at hand, SNF can support and enhance sporting OSV recreation by providing a paradigm for OSV use

that is sustainable into the future. Without sufficient guidance as to conditions and locations where OSV recreation is well suited, OSV motorists are left to travel in times and places which produce *avoidable* injury to forest resources and which exacerbate conflicts with SNF visitors seeking wholesome snow-season experiences removed from motor vehicle impacts. In the long term, such a paradigm will benefit all snow-season enthusiasts, across the board. My hope for this outcome persists.

Thank you all now for considering my comments and suggestions.

Respectfully submitted,

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