

# Central Sierra Environmental Resource Center

## Box 396, Twain Harte, CA 95383 • (209) 586-7440 • fax (209) 586-4986

## Visit our website at: www.cserc.org or contact us at: johnb@cserc.org

March 29, 2024

Jason Kuiken, Forest Supervisor

Stanislaus National Forest

19777 Greenley Road

Sonora, CA 95370

**RE: COMMENTS IN RESPONSE TO THE SERAL 2.O PROJECT DEIS**

To Jason, Beth, Katie, Michael, and others:

 Our staff submits the following comments in response to the Proposed SERAL 2.0 Project and the DEIS. We are attempting to narrow our comments to focus on the priority points that we feel are most meaningful. Similarly, rather than attempt to address each and every issuethat we have previously raised in the planning process, we are limiting our focus to aspects of the proposed project where we have the strongest concerns or where we believe that thoughtful recommendations can be most feasible to adopt.

**BRIEF EXECUTIVE SUMMARY OF THESE COMMENTS**

1. CSERC stands by our previous commitment (when we were a member of the YSS Leadership Team) to “accept” and “not to oppose” the EAD planning process and the proposal to authorize condition-based approval for future salvage logging and temporary roads. We do have some points to raise for consideration.
2. CSERC opposes the use of herbicides for fuel break maintenance or for any treatment other than as a third-tier method for treating invasive noxious weeds.
3. We see numerous reasons to oppose the use of mechanical equipment for fuel reduction treatments within inventoried roadless areas except for very limited areas that we see as acceptable exceptions to our opposition to such treatments.
4. We strongly disagree with the plan to allow the cutting of trees up to 40” dbh in meadows or within 66’ of aspens or blister rust-resistant sugar pines.
5. Our Center has identified a number of significant problems with the project’s proposed treatment of suitable habitat for the California spotted owl and how territories are being delineated.
6. While we are not opposed to targeted grazing, that treatment as now proposed poses risk of significant negative impacts that should not be authorized by the SERAL 2.0 decision.
7. CSERC believes that Special Status and Listed wildlife species will not be adequately protected by management as now described in the DEIS and the Proposed Action.
8. Last, we have input to share about illogical prioritization of PODs that could drive inappropriate shifting of resources and treatments into remote areas of the project area instead of first applying needed treatments in areas more relevant to the protection of lives and property.

**BACKGROUND FOR THESE COMMENTS**

We understand that the Forest is likely to receive widely varying comments from a diversity of perspectives and stakeholder interests. With our comments, we are focusing on issues tied to the SERAL 2.0 project rather than addressing any already existing issues or potential issues within the project area that are not directly identified as project actions. We acknowledge the Forest staff for being open to answering questions and aiming to understand our concerns.

**SPEEDED UP EMERGENCY NEPA**

As was described in CSERC’s joint comment letter with TRT that was submitted for scoping input, the YSS Leadership Team (on which we served) collectively accepted the use of the EAD planning process. Accordingly, CSERC has committed to stand by that acceptance. We have agreed not to oppose the use of that emergency authority for the SERAL 2.0 project. However, in our previous scoping comments we already pointed out that due to so many thousands of acres of approved, but not yet implemented, forest treatments in SERAL and Rim Fire reforestation and in other projects, it does not appear valid for the Forest to assert that SERAL 2.0 must be approved in a speeded-up emergency action determination process. There is already lots of work approved and ready to be implemented.

Having discussed the EAD planning strategy with Forest staff over the last year, we recognize that the Stanislaus Forest desires to be on the leading edge of effective, timely, and cutting-edge forest management strategies. We do not object to that goal. But we do again point out that to eliminate an objection appeal period, and to assert the claim that there is a need for emergency authority to rush to a project decision, appears to not be justified when there is so much already approved and already funded forest treatment work to be done over the next few years.

Second, as was already described in some detail in our scoping comments, we believe the Forest does have a responsibility to distinguish between what the staff can promote as a legitimate treatment that needs emergency authorization versus treatments or project actions that obviously are not essential to approve under the EAD planning strategy. The Forest has already publicized that Jason will not be making a decision until late summer or fall for whether to approve herbicide spraying to maintain fuel breaks or to potentially authorize condition-based salvage treatments and associated temporary road construction. We agree neither of those portions of the SERAL 2.0 project justify EAD-based speeded-up decisions.

We also will note in our comments on targeted grazing that maintenance of fuel breaks that we believe have not yet been constructed does not appear to qualify as a legitimate treatment that can be described as an “emergency need.” Other proposed project actions such as fuel reduction in the “gap” area in the remote back country of the forest also appear to be hard to justify as needing the speeded-up EAD planning authority.

**HERBICIDE USE FOR FUEL BREAK MAINTENANCE IS CONTROVERSIAL AND NOT ESSENTIAL FOR THE SERAL 2.0 PROJECT TO BE SUCCESSFUL AND EFFECTIVE**

CSERC opposes the use of herbicides for fuel break maintenance or for any treatment other than as a third-tier method for treating invasive noxious weeds. As was raised by at least two YSS forest stakeholder group representatives at a recent general YSS meeting, local conservation groups in particular object to the spraying of chemicals on public forest lands. In addition to those two groups who’s representatives spoke, TRT and CSERC raised objections to the spraying of herbicides for fuel break maintenance in our scoping comments as well.

In our scoping input, we pointed out that while herbicide use for the maintenance of fuel breaks may be judged to be cheaper and more uniformly effective at killing back undesired vegetation on fuel breaks, mastication is a reasonable alternative both in terms of cost and applicability. Where mastication is not judged to be preferable or appropriate, the Forest has already publicly promoted its intention to treat thousands of acres each year with broadcast burns as part of an overall prescribed burn program. Treating fuel breaks with prescribed burns has multiple resource and fire suppression benefits. In contrast, the use of herbicides to treat brush and potentially small hardwoods simply kills the brush and hardwoods – it does not remove the fuel. The dead vegetation from herbicide treatment remains on the fuel break, rather than much of the fuel being consumed as is the case when broadcast burns are utilized.

Further, in addition to prescribed burning and mechanical treatments, other alternative treatment methods such as hand-cutting and targeted grazing are also feasible options.

**But perhaps most important is the question of whether the Forest is or isn’t prioritizing a goal to avoid controversy to the degree possible**. Multiple stakeholders have raised an objection to the use of chemical treatment for the maintenance of fuel breaks. That does not mean that herbicide critics are correct or that the Forest staff is wrong to advocate for what is deemed to be an effective and less-expensive treatment. What may be persuasive, however, is for the Interdisciplinary team to consider this question: “If the SERAL project could be approved for a 94,000-acre project area without the Forest staff or YSS advocating for the use of herbicides for fuel break maintenance, why can’t the Forest staff see SERAL 2.0 as being a desirable forest treatment project even if there is no approved use of herbicides for fuel break treatment?”

We have heard key Forest staff praise the overall quality of the SERAL Project and share in the credit for getting that project finalized with surprisingly broad stakeholder support. Isn’t it reasonable for the Forest staff to follow that same strategy with SERAL 2.0, or is it more important to establish the precedent of approving herbicide treatment for fuel breaks in a large landscape project on the Stanislaus Forest?

CSERC acknowledges that the Forest has agreed not to use the EAD’s speeded-up NEPA to lead to a herbicide use decision and to instead follow the normal NEPA planning time frame**. It is our recommendation that when the final decision for whether to approve herbicides is made, that the SERAL project’s very limited use of herbicides (solely for invasive noxious weeds) be carefully considered and emulated.**

 **MECHANICAL FUEL TREATMENTS WITHIN INVENTORIED ROADLESS AREAS**

In initial discussion with Forest staff, our Center raised a concern that SERAL 2.0 maps appeared to show thinning logging treatments within inventoried roadless areas. We were assured that was not the case and that final maps would make that clear.

However, it is still the understanding of our staff that the Forest does intend for there to be mechanical fuel reduction treatments implemented in inventoried roadless areas – in particular in the Eagle and Herring Roadless Areas. **CSERC strongly opposes mechanical mastication or other mechanical treatment within roadless areas in the SERAL 2.0 project area.**

First, we take a position that these semi-primitive non-motorized management Near Natural areas should only have mechanized equipment used for the purpose of masticating fuels, etc. in WUI areas or in areas close to infrastructure. There is no management justification for mechanical fuels treatment in other portions of the IRAs. Whether or not the Forest staff agrees with CSERC’s position on SPNM Near Natural management direction (that natural processes are intended to prevail), there are other solid, compelling reasons NOT to approve mechanical treatments in the Eagle and Herring Roadless Areas.

As now shown in SERAL 2.0 maps, mechanical fuels treatment would be done in the Eagle Roadless Area in areas both to the south and to the east of the Herring Loop Road. Both areas are very wild and suitable for being considered in the future for Wilderness designation. But what is important for these comments is that the areas shown for treatment are illogical in that it would be wasting time and money to shred or masticate fuels in those roadless areas.

All the area south of the Herring Loop Road and nearly all of the proposed fuel treatment areas east of that loop road are rocky terrain with scattered forest, and the areas are at moderately high elevations where high severity wildfire risk is generally low. But most important, IF a wildfire burns in any of those roadless acres south and east of the loop road, such a fire will simply burn upslope into solid rock ridgelines. Our staff worked with Adam Rich over a number of years to set up and maintain furbearer photo-detection surveys, including for Sierra Nevada red fox along the entire area between the Loop Road and the ridge that includes Castle Peak, Cooper Peak, the Three Chimneys, etc.

The area is extremely rich in wildlife diversity, with bobcats, flying squirrels, ringtail cats, marmots, and martens along with deer, bears, Douglas squirrels, migratory songbirds, a diversity of woodpeckers, and many other common species. From our summers of doing wildlife surveys in those areas, we know that the rocky ridge between the Emigrant Wilderness and the north-facing slopes extending down to the Loop Road have solid rock or broken rock ridgelines with no potential to carry any fire south into the Wilderness. Even more, if an ember spotted over the ridge, the south-facing terrain in that part of the Emigrant is so rocky and sparsely vegetated there is no resource risk and no recreational resource at risk.

The bottom line for the entire roadless portion of the Eagle Roadless Area south and east of the Herring Loop Road is that there is no recreational infrastructure, no residences, nor any other property values at risk from a hot fire burning upslope in the Roadless Area. **THERE ARE NO FUELS OR FIRE SUPPRESSION GROUNDS TO JUSTIFY MECHANICAL FUEL TREATMENTS WITHIN THE EAGLE ROADLESS AREA.** (And IF the Forest staff wants to reduce fuels simply to reduce the risk of high severity burn effects for the ecologically valuable old forest habitat across much of that area, broadcast burning can easily be a less controversial, broadly supported alternative.

However, in previous conversations with Katie, our staff did acknowledge that we recognize that the Catfish Lakes core area within the Herring Roadless Area is indeed in proximity to the iconic Pinecrest recreation area and to Leland Meadows and other high value property sites. Accordingly, we pressed in conversations during the scoping period that the Forest choose to not propose thinning logging in the “Catfish Lakes corner” of the Herring Roadless Area, but to instead consider alternative fuels treatments.

At one point our staff discussed the potential for mechanical treatment in that pocket of the Herring Roadless Area–such as a grapple masticator or a similar piece of equipment to cross the bridge out at Herring Creek and to walk the equipment back along the now-mostly-overgrown old skid road that was used decades ago for timber entry into the area to the southwest and west of that bridge. However, after visiting the Catfish Lakes area before winter weather, our field visit convinced us that extremely rocky terrain will prevent any such mechanical equipment from feasibly accessing the two main Catfish Lakes and the smaller pond area and the old growth groves that spread across the roadless area in the broader area around and to the north and east of the Lakes.

We strongly urge that the Forest designate that specific area (whatever portion is deemed to legitimately be within a WUI distance of the Pinecrest Lake cabins) as an area of the Herring Roadless Area to be managed by hand cutting with chainsaws, piling, and jackpot burning of the dead trees, fallen logs, and widespread surface fuels of branches and scattered brush. THIS CATFISH LAKES CORNER OF THE ROADLESS AREA PROVIDES A QUICKLY ACCESSIBLE SITE FOR CONTRACT HAND CREWS TO WORK TO PILE AND PREP FOR BURNING CONCENTRATED WOODY MATERIAL WITHOUT THE NEED FOR MECHANICAL EQUIPMENT.

Similar to the concern that the Eagle Roadless Area does not have any justifiable grounds for doing mechanical treatments because a wildfire will simply burn upslope into rocky terrain, most of the Herring Roadless Area does not justify mechanical fuel reduction treatments due to rocky terrain upslope at Pinecrest Peak and within the entire South Fork Stanislaus canyon behind Pinecrest that is dominated by granite and thus has nearly no fire risk.

CSERC urges the Forest staff to focus proposed mechanical fuel reduction treatments where there is a valid rational justification for spending taxpayer dollars on that work. ALL OF THE HERRING ROADLESS AREA THAT EXTENDS TO THE SOUTH AND EAST OF THE CATFISH LAKES CORE OLD GROWTH AREA CAN BE BROADCAST BURNED IN A MANNER THAT FULLY RETAINS THE ROADLESS AREA CHARACTERISTICS WITHOUT ANY MECHANICAL ENTRY.

**We strongly urge the Forest to target mechanical treatment actions to areas outside of the Eagle Roadless Area south and east of the Herring Loop Road and outside of the Herring Roadless Area except for the portion around the Catfish Lakes where hand treatments combined with jackpot or large pile burning can significantly reduce risk of wildfire spread from that old forest habitat area.**

**CSERC OPPOSES THE CUTTING OF TREES UP TO 40” DBH**

Our CSERC staff strongly disagrees with the proposal to allow the cutting of trees up to 40” dbh when growing within meadows or in a distance within 66’ of aspens or blister rust-resistant sugar pines. Forest staff have responded to that objection by pointing out that such approval was contained in SERAL, and that we did not raise strong concerns then. We have bluntly admitted that despite our staff’s careful review of the SERAL DEIS, we did not see the description of the proposed treatment that allowed for logging trees up to 40” dbh within meadows, in proximity to aspens, and in proximity to blister rust-resistant sugar pines. We would not have supported that then, and we do not support it now.

At this time, however, the situation is different due to the Biden Administration Executive Order for Old Growth. To our knowledge we are one of the only environmental organizations in California to have fully participated in every webinar and public input opportunity for the Old Growth and Mature Forest policy planning process. (We acknowledge that the national Sierra Club and some other national groups have also been highly involved.) CSERC has networked with national federal team members. We helped organize a special zoom session with Old Growth and Mature Forest planning staff to discuss the pending development of a forest plan amendment for all national forests. It is thus highly troubling to have the SERAL 2.0 project deviate from the explicit intent of the Old Growth and Mature Forest policy which is to retain Old Growth Forest conditions and characteristics where they exist. The single most obvious such Old Growth condition is the presence of very large, old trees.

CSERC acknowledges that at this time the national team was clear that there is no current mandate that explicitly prohibits any forest project action that may relate to old trees or large trees. But we have heard national FS administration staff leading the calls with discussion of the intended goal to preserve and expand Old Growth Forest values in all forests across the nation.

Accordingly, we spell out our strong request that the SERAL 2.0 project withdraw the current proposal to allow the cutting (and potentially the removal) of trees up to 40” dbh. First, there is absolutely no ecological or forest health justification for cutting down very large conifers growing in meadows. It is “old school” forestry to rationalize that a defined meadow edge must separate trees from meadow vegetation. As one conservation group activist shared with our staff recently**, if a tree has been in a meadow for 150 years or longer, there certainly is no emergency justification for cutting down that tree**.

Second, CSERC has objected strongly in the past to the assumption that just because a large conifer is growing within a tree height or closer to an aspen (or “aspen stand”) that the conifer is somehow causing harm to the aspens. Adam Rich was a strong proponent of conifer removal to benefit aspens, but we have stood together at aspen stands and openly debated that cutting a tree 30 or 40 feet away from an aspen makes the slightest difference for water or nutrients. What more clearly matters is whether or not a large conifer blocks sunlight getting to the aspen (and equally so, to a blister rust-resistant sugar pine). CUTTING A VERY LARGE CONIFER THAT IS GROWING TO THE WEST, NORTHWEST, NORTH, NORTHEAST, OR EAST OF A SUGAR PINE OR AN ASPEN DOES NOT IN ANY WAY BENEFIT THE ASPEN OR SUGAR PINE BY PROVIDING MORE SUNLIGHT. Instead, it simply kills a large nearby conifer.

CSERC asserts that there are no ecological or forest health reasons to justify the SERAL 2.0 project to authorize the removal of conifers larger than 34” dbh for white fir or incense cedar or larger than 30” dbh for pines or Douglas firs if those conifers are growing at a distance of 30’ or more from a blister rust-resistant sugar pine or an aspen. Furthermore, we strongly dispute that there is any ecological or forest health reason to cut conifers that are growing beyond 15 or 20 feet from a sugar pine or an aspen if the targeted conifer is growing on the northwest to north to the northeast side of the sugar pine or aspen, since the large conifer will not block any beneficial sunlight to the aspen or sugar pine.

**Our staff is aware in fielding phone calls from local activists that the cutting of large trees is one of the most obvious points of controversy for the SERAL 2.0 project.**

CSERC again asks the question: “If there are only six or so blister rust-resistant sugar pines in the SERAL 2.0 project area that would be situated so as to justify the cutting of other conifers up to 40” dbh to supposedly “benefit” those six trees, is it sufficient for management objectives to only cut competing trees of a size up to 30” or 34” dbh? Would that be adequate if leaving even larger conifers uncut will reduce opposition to the SERAL 2.0 project?” Does it really matter to the “success” of the giant SERAL 2.0 project to cut the trees up to 40” dbh?

And similarly, could the Forest compromise to reduce controversy, and only target for removal conifers up to 34” dbh when such trees are growing in proximity to aspens? Cutting all the competing conifers up to 30” dbh or 34” dbh on the southwest, south, and southeast sides of an aspen would significantly open up sunlight to that tree. Cutting other trees would do little.

**In light of the national Old Growth and Mature Forest policy planning process that has engaged tens of thousands of citizens with input, CSERC respectfully asks the Forest to reject the proposal to cut trees in the SERAL 2.0 project up to 40” dbh for the three defined reasons. It is our view that the Forest may gain far stronger overall support for the project, rather than opposition to the project, if the cutting of very large trees is dropped from the project.**

Put more simply,CSERC recommends that eliminating exceptions to the standard DBH limits is a reasonable way to significantly reduce opposition to the proposed project.

**MANAGEMENT ISSUES FOR THE CA SPOTTED OWL**

CALIFORNIA SPOTTED OWL (*Strix occidentalis occidentalis* Sierra Nevada DPS)

The Terrestrial Wildlife Biological Evaluation for SERAL 2.0 describes the proposed project area as “the heart of CSO range in the Sierra Nevada”. Further, it states that the project is “located partially in and between Areas of Concern 5 and 6 for CSO…where potential gaps in habitat and the associated loss of forest connectivity are a potential issue…[and] management decisions may have a disproportionate potential to affect the California spotted owl population”. Also “CSO sites in the SERAL 2.0 project area location are of particular importance to the distribution of California spotted owl in the Sierra Nevada and potentially key to this subspecies’ continued persistence.” Fifty-two known CSO PACs and 58 known CSO territories are delineated in the proposed project area. Only two of the territories do not currently meet desired conditions (so why treat them at all?). The Terrestrial Wildlife BE states that “...no CSO PACs are currently eligible for retirement based on survey history and current status.”

It is clear that wildfire is a major threat to the California spotted owl. However**, aggressive forest treatments are also a major threat to the owl.** A delicate balance must be struck between fire resilience and protection of CSO nest stands, PACs, and territories.

The proposed project should not include reducing any action to reduce habitat quality in owl PACs and territories by removing larger trees in an effort primarily to produce more timber volume, or even for the supposed objective of increasing stand-scale fire resilience. The California Wildlife Habitat Relationship system indicates that the best quality habitat for CSO in order from highest to lowest is 6, 5D, 5M, 4D and 4M. In a number of instances, the proposed project habitat in CSO PACs and territories would be reduced in quality (including 5D to 5M, 5D to 5P, 5M to 5P, 4D to 4M, 4D to 4P, 4M to 4P and 4M to 4S) as shown in SERAL 2.0 DEIS Map 5 (Pre and Post Treatment CHWR in CSO PACs and Territories). Increasing stand level fire resilience and increasing timber yields should not have priority over protecting the habitat quality in CSO PACs and territories. The Terrestrial BE states, “The most recent scientific analysis indicates current population declines…are likely …a lag effect from historic large tree removal and historic fire suppression”. Meanwhile the SERAL 2.0 DEIS proposes to remove large trees from the best quality habitat resulting in less favorable habitat.

**It is not clear based upon our review of the DEIS how the pending listing of the California Spotted Owl as an ESA threatened species will be accommodated.**

Maps for the SERAL 2.0 project show that a number of PACs extend beyond the territory boundaries. This appears to conflict with the 2019 Conservation Strategy which describes a PAC as being contained within a territory. **The territory circular boundary should be enlarged to fully include the PAC**.

In many instances significant portions of CSO territories fall on adjacent private timber lands that do not or will not provide adequate CSO habitat. The SERAL 2.0 Terrestrial Wildlife BE echoes the 2019 CSO Strategy in determining that “territory boundaries may be adjusted to be non-circular, as needed, to include the most sustainable areas of high-quality habitat and exclude areas less likely to support suitable habitat”. We recommend that where 1,000-acre territory circles include substantial acreage of private land, lava cap, or otherwise unsuitable habitat, the Forest should either: 1) increase the radius of the territory circle to include a full 1,000 acres of suitable habitat on Forest lands, 2) extend the territory outside of the current circular boundary (possibly along the lines of HRCAs delineated in the past), and/or 3) protect other contiguous, suitable habitat within 1.5 miles of the nest stand under the same rules as previously applied to a CSO territory. In any other instances where habitat requirements are not met in the 1,000-acre territory circle, the territory boundaries should be modified to include additional area to provide the required habitat.

We also see that some CSO territories within the SERAL 2.0 project area overlap significantly. Based upon the 2019 Conservation Strategy, the 1,000 acres of habitat in a CSO territory are the general amount of suitable habitat acres needed to support one nesting pair of owls. Accordingly, where territories overlap, CSERC recommends that additional suitable habitat outside of the territory circle be protected under the same rules as the territory to provide a full 1,000 acres of suitable habitat for a reproductive pair within 1.5 miles of a nest stand.

If a single owl is found, then a PAC should not be retired. The minimum for continued retention of a PAC/Territory should be the presence of a single owl, rather than a pair.

Home range areas (on average 3,160 acres) are not mapped in the DEIS nor is there any provision for habitat protection within home range areas (except for at a watershed level in some cases).

The definition of “maintain or improve” suitable habitat allows for the degradation of suitable habitat, including degrading suitable habitat to unsuitable habitat, even though desired conditions have not been met. We recommend “Management activities that maintain or improve habitat quality in the highest quality and best available nesting and roosting habitat should 1) retain existing CWHR canopy cover class (e.g. do not reduce 5D to 5M), 2) retain clumps of the largest available trees greater than 24 inches DBH, **and** 3) retain at least two canopy layers at the stand/patch scale in areas where large trees occur.”

At the higher elevations, where owls tend to prey on flying squirrels (rather than wood rats as in the lower elevations), 40-50% canopy cover may not be sufficient (to support flying squirrels). CSERC recommends 50-60% as a minimum canopy closure for suitable habitat in higher elevation territories.

For consistency, to better facilitate the required USFWS consultation and to truly provide adequate protection for CSO, the final Project policies and measures for the owl should be compared with the CSO policies already approved as part of the recent Sierra and Sequoia National Forest Plan revisions. It appears that SERAL 2.0 allows for lower quality habitat to satisfy desired conditions being met in CSO territories. Then because of the proposed definition of “maintain or improve habitat quality” the proposed action allows degradation of the best habitat that does exist in CSO territories prior to treatment actions.

We note that the DEIS may be criticized for underestimating the proportion of moist mixed conifer to dry mixed conifer habitat because it uses an alternative approach to what was used in the Sierra and Sequoia Forest plans.  Since 60% of highest quality habitat is to be protected in CSO territories with moist mixed conifer forest, and only 40% is to be protected in dry mixed conifer CSO territories, less CSO habitat will be protected if there is an underestimation of moist mixed conifer forest.

These different standards for owl management in SERAL 2.0 compared to the Sierra and Sequoia Forest plans need to be evaluated for determining the appropriate balance between short term owl protection and long-term forest resiliency. Due to the owl being listed, extra protection could be provided by attempting to ensure that 50% be the best available habitat minimum required for protection in dry mixed conifer CSO territories.  It appears that many SERAL PACs already have low amounts of highest quality habitat, so more of the best available habitat being protected would benefit the owl.

A rigorous monitoring strategy to track effects from the proposed action should be provided in the DEIS.  Currently only surveys prior to habitat degrading activities are proposed.  This is insufficient to determine the effects of actions.  Surveys should be conducted following actions in territories and PACs to determine the actual effects of thinning and other treatments.

**TARGETED GRAZING**

While CSERC is not opposed to targeted grazing, that treatment as now proposed will pose the risk of significant negative impacts that should not be authorized by the SERAL 2.0 decision.

**CSERC HAS MANY CONCERNS RELATED TO THE PROPOSED USE OF TARGETED GRAZING**

Our Center is uncomfortable at best with the Forest proposing more livestock grazing. For decades CSERC staff has reported cattle grazing activities and resource impacts that have been in direct violation of S and G’s in the Forest Plan. And in all that time, to our knowledge, the Forest has not had the capacity nor the appetite to hold permittees accountable to correct violations and to assure that repeated violations will not occur. Instead, in our Center’s extensive watchdog monitoring efforts in the Forest, range mismanagement has been and continues to be one of our greatest frustrations.

A key point is that if the Forest does not have sufficient staff capacity and enforcement tools to ensure that resources are not degraded or damaged by the existing level of livestock on the Forest, how can the Forest staff be trusted to **add** more livestock grazing without further increasing the likelihood of riparian area pocking, chiseling, and overgrazing or other negative effects? Our recommendation would be that the Forest first complete the Congressionally mandated AMPs for all allotments in the Stanislaus Forest prior to authorizing additional livestock to be permitted to graze in the forest.

However, if despite the above concerns, targeted livestock grazing is approved in the ROD for this Project for the purpose of fuel break maintenance, the following issues should be fully addressed:

* Having 1,000 or more animals (sheep or goats) present along a stream or an ephemeral stream channel will be a magnet, drawing all of the animals to the wet area where there is lush riparian vegetation as well as water. If the fuel break area with targeted grazing includes a lower ridge site with a stream or wetted area, there is almost a certainty that the area will experience a high use by livestock. **Water for livestock in targeted grazing sites should be trucked to troughs.** To protect streambanks, riparian habitat, and water quality, natural water sources should not be utilized.
* It is our understanding that if goats are used, they would be confined within temporary electric fencing and would be attended to at all times by handlers. If so, our Center prefers the use of goats exclusively as such confinement would truly be “targeted grazing”. Also, goats are very effective at grazing and browsing for fuels reduction purposes and are even known to climb upwards to reach browse material, which could increase the consumption of potential ladder fuels.
* Sheep are also highly consumptive at grazing groundcovers and surface vegetation, and to a lesser degree, pruning bushes through browsing. But we have strong concerns that the proposed use of 1,000–1,500 sheep would not assure that they would be consistently excluded from sensitive areas without the use of temporary electric fencing (which is not typically used with sheep.). If sheep would not be fenced, then we recommend approving only the use of fenced goats.
* **If the authorized livestock is not enclosed within temporary fencing, then exclusion fencing should be installed near areas with naturally flowing water to protect stream banks, riparian habitat, and water quality.**
* **Targeted grazing should be excluded from:**
	+ Areas with known T&E plant species
	+ Areas with invasive plant populations (to prevent seed spread and distribution)
	+ Recreation areas
* We accept TARG-1–3, that there should be a site-specific grazing management plan in place that conforms to the description (as well as addressing all the concerns in these comments); that livestock operators will be responsible for improvements, salt will be placed 1/4-mile from water sources, and bedding will be excluded from riparian corridors; and that livestock will be quarantined and equipment cleaned prior to introduction to protect against the spread of non-native or otherwise unwanted vegetation.
* We strongly support TARG-5 that states: “Livestock operators with specific experience in grazing operations for fuel reduction should be prioritized for targeted grazing contracts or agreements.”
* Our Center has serious concerns with TARG-6 which would supposedly rely on BMPs to assure that water and riparian resources are not degraded. CSERC has no confidence that “If animals are allowed to be herded to nearby water, all streambank standards and water quality BMPs would be applied.” BMPs are simply well-intended objectives that are generally not measurable; or often BMPs can be checking questions on a checklist intended to be measured during a project’s implementation. BMPs are rarely specific enough to be reliably expected to prevent resource damage. To protect stream banks, riparian habitat, and water quality, extensive flocks/herds of livestock should be excluded from naturally flowing water and from areas with riparian vegetation – especially because such areas pose low fire risk and targeted grazing is not justified.

**THE ACTUAL EFFECTIVENESS OF TARGETED GRAZING IS QUESTIONED**

Our Center contends that the specific outcomes of fuel break maintenance from targeted grazing will show limited effectiveness. At best livestock may help control new growth of ground covers and some ladder fuel vegetation; but livestock will not likely kill (consume) brush or young conifers. It is likely that even goats will not consume pine needles, branches, dead logs, or other forest litter that become the main fuels that raise the risk of spreading fire. The use of hand crews, masticators, and prescribed fire would be far more effective. **There is a lack of assurance that targeted grazing will be managed to minimize impacts to meadows, fens, and riparian areas** from damage typically associated with grazing currently occurring on the Stanislaus Forest.

**CSERC OPPOSES THE USE OF CATTLE FOR “TARGETED GRAZING”**

It appears that, since the scoping period, cattle have been removed as a livestock type proposed for targeted grazing for fuel break maintenance. We support the adjustment. Cattle would not be confined without fencing, negating any “target” from their use. And while they may be effective at feeding on grasses and some ground cover vegetation, cattle would only browse the most tender tips or branches of new growth of shrub and tree species. Again, cattle would only provide a limited amount of fuel reduction within that targeted grazing site.

**PREDATOR CONTROL**

If bands of 1,000-1,500 sheep or goats are brought into the forest for targeted grazing, large natural predators will surely notice. The DEIS fails to address this potentially significant issue. In a prior targeted grazing experiment done on the Mi-Wok District decades ago, the hundreds of goats were laughingly referred to as “cougar candy” because they were fenced in the forest almost as a concentrated bait to entice predators. In that situation, forest staff reported that predator control was utilized to kill mountain lions that had begun preying on the goats.

Our Center strongly opposes the use of lethal “predator control” methods to protect sheep or goats brought into the Forest for purposes of targeted grazing in the SERAL 2.0 project. Whether the predators are mountain lions, coyotes, or any other natural predators, it is unreasonable to expect that providing a huge new food source for predators will not result in some level of livestock depredation. The FEIS should mitigate this potentially significant issue by assuring that lethal predator control will not be utilized for protecting livestock at targeted grazing sites within the Project area.

**ILLOGICAL USE OF EMERGENCY ACTION TO MAINTAIN FUEL BREAKS THAT DON’T YET EXIST**

As mentioned briefly previously, our Center notes that with the EAD process being used for the decision on targeted grazing, it is hard to justify an emergency need for future maintenance of a fuel break that has yet to be established. It would be more appropriate for targeted grazing to join the proposed use of herbicides and condition-based salvage in a future NEPA decision that is currently predicted to be delayed until the end of summer or early fall.

**ESSENTIAL PROTECTION FOR LISTED SPECIES IS NOT ADEQUATELY ASSURED**

CSERC believes that the protection of at-risk Special Status and Listed wildlife species will not be adequately assured based upon what is now described in the DEIS and the Proposed Action.

**SPECIAL-STATUS SPECIES**

Table 2 (p.5) of the Draft Aquatic Species Biological Evaluation for the SERAL 2.0 DEIS states that foothill yellow-legged frog (ESA Endangered), Sierra Nevada yellow-legged frog (ESA Endangered), Yosemite toad (ESA Threatened), and Northwestern pond turtle (ESA proposed Threatened) may all likely be adversely effected by the proposed project and that Critical Habitat for Sierra Nevada yellow-legged frog and Yosemite toad may likely be adversely affected. This is unacceptable. **The project should be designed and conducted in a way to have no expected adverse effects on threatened or endangered species.**

**FOOTHIIL YELLOW-LEGGED FROG (*Rana boylii* Southern Sierra DPS) is an endangered species and is not adequately protected by the proposed project.** (The following generally applies to Sierra Nevada yellow-legged frog (*Rana sierrae*) as well).

The DEIS does not provide important information on the foothill-yellow legged frog found in the project area including the information that during the recent listing by the USFWS, four distinct populations were identified, the one found within the proposed project area being the South Sierra DPS, which was listed as endangered.

Identification of “occupied” habitat is certain to be more than what is currently known and reported in the BE (259 acres) due to there being such limited actual surveys and due to the widely scattered proven locations where FYLF have been found.

The literature suggests that FYLF adults and other at-risk amphibian species may use upland areas not protected by Riparian Conservation Areas for overwintering. Proposed project activities including mechanized forest thinning or masticating may potentially impact these frogs; and these impacts should be considered and mitigated.

The Aquatic Invertebrate BE claims that there is negligible risk of FYLF adults being impacted by pile burning when piles are kept 50 feet from streams, however, is it actually quite likely that frogs may shelter in burn piles that are more than 50 feet from streams.

Use of heavy equipment, particularly masticators, is another threat to FYLF in upland areas more than 50 feet from streams, especially in areas surrounding known occupied sites.

The BE also states: “... there is little evidence that fires falling within the range of historical intensities and timing would cause much direct mortality” to FYLF, however fires falling outside of the range of natural timing such as spring and early summer, could harm FYLF, especially in upland areas around occupied habitat.

FYLF do not always stay within 100 feet of water; many move into upland areas and may cross project sites and roads used to access project sites.

The new construction of temporary roads (that would be allowed as a condition-based future project treatment) increases the potential for direct mortality consequences for FYLF due to the likelihood of the use of heavy equipment and resulting soil disturbance.

**Another issue is that there is no legitimate rationale for herbicides to be used in occupied or possibly occupied FYLF habitat. Herbicides should not be used in or near such areas.** Foothill yellow-legged frog (Southern Sierra DPS) is an endangered species. Pesticide drift from the Central Valley has been identified as a major threat to the species. Of 259 acres of known occupied FYLF habitat on the Stanislaus Forest, 38 acres are proposed for herbicide application (and 47 acres of potentially occupied suitable habitat of 2,598 modeled suitable habitat). Glyphosate is moderately to highly toxic to amphibians. Toxicity data for Chlorsulfuron and Clopyralid on amphibians is not known (neither the published literature nor the U.S. EPA files include data regarding the toxicity of clopyralid to amphibian species – p. 27 Aquatic Species BE). The known (Glyphosate) and unknown (Chlorsulfuron and Clopyralid) risks of herbicide use in or near areas occupied or potentially occupied by FYLF is simply not worth the risk to the listed species. **We urge that occupied or potentially occupied FYLF habitat and surrounding buffer areas not be treated with any herbicide to protect this endangered species.**

Uncertainty is further introduced into the evaluation of potential effects of herbicides on the foothill yellow-legged frog through the selection of surrogates to represent this species, through the use of mixtures of aminopyralid with other herbicides (pre-mixes or tank mixtures) or other potentially toxic ingredients (i.e., degradates, inert [other] ingredients, and added adjuvants), and by the estimation of effects via exposure concentration models. The uncertainty inherent in screening level ERAs is especially problematic for the evaluation of risks to T&E species, which are afforded higher levels of protection through government regulations and policies.

These commercial herbicides, however, may contain (e.g., Roundup®) or be combined with (e.g., Rodeo®) surfactants such as polyethoxylated tallowamine (POEA), used to bind the chemicals to plant materials, which have been shown to be toxic to aquatic life, including several species of ranid frogs (Folmar et al. 1979, Mitchell et al. 1987, Servizi et al. 1987, Wan et al. 1989, Mann and Bidwell 1999, Smith 2001, Howe et al. 2004). Surfactants may affect aquatic organisms by damaging gills (SERA 2003a), which may be why tadpoles were found to be more sensitive than juveniles or adults to the full Roundup formulation of Glyphosate (Bidwell and Gorrie 1995, Mann and Bidwell 1999). A study showing high toxicity of larval and post-metamorphic northern leopard frogs to Roundup® may also be a function of POEA (Relyea 2005a); this study did not separate the effects of glyphosate and the associated surfactant.

The effects of locally applied herbicides on mountain yellow-legged frogs are not known. Some level of risk posed by various herbicides to mountain yellow-legged frogs is suggested from data on other amphibians, but no data currently exist evaluating the level of risk of these pesticides to mountain yellow-legged frogs. Glyphosate is moderately to highly toxic to amphibians. There is no mention of this in the DEIS. Tricoplyr is toxic to fish and aquatic invertebrates. There is no toxicity data for Chlorsulfuron or Clopyralid on amphibians. Potential impacts to amphibians cannot be adequately considered for these herbicides without this data. Because of this, these herbicides should not be considered for use in the proposed project anywhere that listed amphibian species could be exposed to the chemicals.

Aminopyralid is very persistent in the environment after application – it does not break down for extended timeframes. This has been a problem in compost made from treated vegetation and manure from animals that graze on vegetation that has been treated with aminopyralid – it passes through these animals and is still active. This has been shown to have a negative effect on plants grown in compost or manure that is contaminated in this way. Clopyralid is known to have similar persistence and negative effects on plants grown in contaminated compost and manure, in addition to its unknown toxicity to amphibians. Clopyralid is banned in several states for its long persistence in the environment. Aminopyralid and Clopyralid can persist in the environment for months or years.

Herbicide application mixtures usually contain additional chemicals (e.g. surfactants, colorants, inert ingredients, etc.). The toxicity of many of these additives is not fully considered. The toxicity of Syl-tac (a surfactant) to amphibians is not known. The toxicity of Hi-light (a colorant) to amphibians is also not known.

We agree with the statement made on page 31 of the SERAL 2.0 Aquatic Species BE – “The proposed action is therefore likely to adversely affect the foothill yellow-legged frog”.

**HARDHEAD** (*Mylopharadon concephalus*)

Hardhead are mainly bottom feeders, foraging on invertebrates and aquatic plant material from the stream bed although they will also eat drifting insects and algae from higher in the water column. Potential effects from herbicides on algae and aquatic invertebrates could indirectly affect hardhead, through trophic pathways.

**WOLVERINE** (*Gulo gulo*)

Wolverine was recently listed as threatened by the USFWS. Wolverine is not considered in this EIS despite the fact that the Stanislaus National Forest is within the range of the wolverine, suitable habitat is present within the project area, and a wolverine has recently been observed in the central Sierra Nevada. This is a major omission of the EIS. Potential impacts to wolverine from this proposed project should be fully evaluated and considered.

**PODS ARE ILLOGICALLY PRIORITIZED AND NEED REVISED PRIORITIZATION**

The proposed project and associated SERAL 2.0 maps show the illogical prioritization of PODs that could direct inappropriate shifting of resources and treatments into remote areas of the project area instead of first applying needed treatments in areas that are far more relevant to the need for protection of lives and property.

We believe that this concern has already been addressed by the I.D. Team, but we are raising it as a key point in our comments. It makes no sense to prioritize treatments out in the Gap portion of the SERAL 2.0 project on the north side of Beardsley Reservoir when there are no residents, few areas with vulnerable infrastructure, and primarily highly altered and intensively managed private timberland tree plantations that can readily be restocked and regrown if a high severity fire burned across the area. In contrast, all of the main areas directly south and southeast of Highway 108 and extending eastward are areas where the potential for a high severity wildfire would pose extreme risk to literally thousands of residents and, at times, to many thousands of recreational visitors.

CSERC does not assume that our staff has all the values and property criteria that could most realistically identify which PODs should be designated for which priority ranking, but we do strongly urge the Forest staff to revise the current POD prioritization ranking and to use logic and the years of experience of Forest staff to better rank which areas need treatment sooner rather than later–and not be driven by modeling that does not realistically distinguish between different types of private land and may rank all private properties as equal for risk.

**ONE ADDITIONAL MINOR, BUT IMPORTANT, COMMENT ON THE NEED TO PROTECT DOGWOODS**

As our staff has pointed out in the past and in a recent discussion with Katie, it is ecologically important to protect dogwoods to the extent feasible when fuel breaks are being constructed or when vegetation is being treated to maintain a fuel break or to do selection logging treatments to reduce stand density. Dogwoods are highly important for their fall berries that are aggressively fed upon by pileated woodpeckers, bandtail pigeons, and various other species.

In our Center’s extensive fieldwork and monitoring done in the local region, we see that in a relatively few areas such as at Calaveras Big Trees Park there can be belts or patches of dogwoods in some abundance. But across the majority of forest areas at low to mid elevation where dogwoods can be found, dogwoods usually are only in very isolated or scattered clumps or are found as individual trees widely scattered amidst the forest area. Compared to most other tree species in the pine and mixed conifer forest stands, dogwoods make up only a tiny percent of a stand.

Further, unlike oaks, alders, and maples, mature dogwoods often do not reach a diameter of 10” or greater, so hardwood protection prescriptions requiring protection for hardwoods 10” and larger in size may fail to protect all but the largest dogwoods. CSERC suggests that a lower diameter limit (perhaps 8” dbh) be spelled out as the size of dogwood to be avoided along with a general objective to avoid the clearing of young dogwoods to the extent feasible. Dogwoods are not highly flammable, and in wildfires often only have scattered branches ignite from a ground fire burning underneath them. They rarely torch, and there is no strong fuels reason to remove them from fuel breaks.

Because of their important role for the bandtail pigeon and for the pileated woodpecker (both of which are at low population levels in the local forest), dogwoods deserve to be spelled out for avoidance during the construction of fuel breaks or when thinning logging treatments are being laid out. We ask that when prescriptions for treatments for SERAL 2.0 are developed that language in the FEIS and in the ROD assure that dogwoods will receive reasonable protection.

**IN CLOSING**

Our staff thanks the Forest interdisciplinary team members who have taken the time to review these comments. We have focused on points of strongest concern, and we honestly believe that there are reasonable options described in these comments that can be utilized to reduce controversy for the Project overall if that matters to the Forest.

Please contact our staff if there are any questions or if we have not provided clarity in our comments.



Executive Director Program Director Staff Ecologist