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Organization:

Title:

Comments: Dear Tim Reed and Joe Metzmeier,

Thanks for your work on this project! Protecting rare plants is an integral part of the Forest Service's forest plan and mission. The Forest Service's collaboration on this project with members of the public dedicated to conserving plants is very inspiring and honorable.

I have some specific comments I would like to mention. I am opposed to the use of herbicide especially on native plants and as a foliar spray. Excessive use of herbicide on sunny hilltop lawns and roadsides is one of the reasons why the native plants the project is working to conserve are so rare. Although I trust that the use of herbicides is a good faith effort to best manage the area for rare plants I think the following risks need to be considered.

First there is the risk that herbicide will kill rare plants more than invasive species. The top hits of a quick search on google scholar of "rare plant management with herbicide" brought up studies indicating that herbicide use caused more harm than good.

<https://www.sciencedirect.com/science/article/abs/pii/S0006320702000629>

<https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1890/07-1482.1>

<https://www.sciencedirect.com/science/article/abs/pii/S0006320712004375>

I don't present these three abstracts as the final word on the use of herbicide in every situation but rather some evidence that best intentions of its use often don't align with measured outcomes.

This research becomes especially discouraging when coupled with the health risks of herbicides, like Glyphosate. Monsanto has had to pay out over \$11 billion dollars in 100,000 lawsuits of non-Hodgkin lymphoma and other cancers. Subsequently Glyphosate has been banned in France and Portugal with more country wide bans in the works. It seems like this project may be an example where the harms of herbicide outweigh any benefits.

I also oppose the use of heavy machinery in areas where rare plants are currently located. Heavy machinery (especially if not sterilized to prevent seed spread) often brings with it invasive species. If commercial harvest cannot be avoided altogether, this may be an opportunity to test out aerial cable rigging on a smaller scale before it may be needed on larger scale steeper projects.

Despite these concerns, this project is very encouraging in its emphasis on rare plant conservation and the high level of collaboration with the public and outside organizations. The rare plants being protected through the Curt Pond Woodland Grassland Project are gems that deserve our attention and efforts.

Sincerely,

Chris Karounos

Ecosystem Defense Coordinator

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