

Progress report for EMC-2022-004

June 21, 2024

Below is the table from the original grant proposal. Beneath the table is an update on each item.

Activity or Deliverable	Type	Year 1 (07/22-06/23)	Year 2 (07/23-06/24)	Year 3 (07/24-06/25)
Propose experimental forestland designation to BOF	Activity	X		
Interview professionals who are using SDI for stocking control	Activity	X		
Publish guide for using SDI	Deliverable		X	
Compile publications of historical data	Activity		X	
Use G+Y modelling with case-study data	Activity		X	
Develop field demonstrations of marking for tree vigor with SDI	Deliverable			X
Field tours	Deliverable			X
Manuscript submitted to journal	Deliverable			X
MF degree/experience toward RPF license	Deliverable			X

1. Propose experimental forestland designation to BOF. This was done twice, via requests to Jane VanSusteren. We have not heard back about this.
2. Interview professionals who are using SDI for stocking control. This was done at the Society of American Forester’s Conference in Sacramento. And also at the Silviculture Instructor’s tour. In depth conversations were had with James Long, who is the leading silviculture researcher that has presented SDI as a management tool in the literature and in training programs. The results of the interviews were influential in deciding what to include in the SDI summary table and in how to design the simulation modelling in FVS.
3. Publish guide for using SDI. This task was going to be led by Ryan Tompkins, who passed away recently. Prior to his passing, we decided that the form that this should take would be either a Research Brief or a component of an applied journal manuscript in California Agriculture. We decided not to create a new guide, because one has recently been developed by other authors. This will be addressed in the Fall of 2024 with a new Master of Forestry student who will work on the

project. While the funding for MF students has already been spent (see below), York may be able to contribute non EMC funds to this new MF student.

4. Compile publications of historical data. This was done, with work being led by Master of Forestry student Connie Ryan, who was supported with grant funds. Mentoring was provided by Tompkins, Collins, and York. A table has been created, following considerable work to find and evaluate relevant publications to include. This table is intended to be the centerpiece of a manuscript to be developed in the next year with Ryan as lead author. Because the table is meant for publication, we are not yet making it publicly available.
5. Use G+Y modelling with case-study data. This was done, again with MF student Connie Ryan leading the work. Mentoring was provided by Tompkins, York, and Collins during this process. The results of the modelling are intended for use in a manuscript.
6. Develop field demonstrations of marking for tree vigor with SDI. This is scheduled to occur over the coming year. York will lead this effort at Blodgett Forest. While the plan is to develop a demonstration site at Flatwoods in Shasta County, we are uncertain if BOF will assist in designating Flatwoods Research Forest as experimental forestland. If not, then it is likely that Baker Forest, a UC research property in Plumas County, will be used.
7. Field tours. These are scheduled to occur following item 6. Our plan is to invite the new Forest Advisor to be hired in Plumas County in 2024/25 to lead tours with support from this grant.
8. Manuscript submitted to journal. While we have considerable uncertainty in this deliverable, especially considering the passing of Co-PI Tompkins, we are currently targeting the development of two manuscripts. One will be highly applied in nature and submitted to a regional journal; the other more conceptual and submitted in an international journal.
9. MF degree/experience toward RPF license. This has been completed. Connie Ryan was supported with this project and has completed their MF thesis. As noted above, our intention is to involve a second MF student with this project in the coming year.

Presentations where we have presented results of this study:

Ryan Tompkins gave a presentation on this study at a CLFA conference in 2023

Rob York gave a presentation to Forestry Forum in 2023

Rob York gave a presentation to Forest Landowners of California in 2024

Brandon Collins gave a presentation to Marin Wildfire Authority in 2023

Connie Ryan gave a presentation / webinar as part of the Master of Forestry finishing series in 2024