

How do CFLRP activities affect carbon carrying capacity over time?



Tree stump post treatment at the Canjilon WUI monitoring site.

Intended monitoring:

Analyze the total carbon stock by forest type utilizing LANDFIRE and other existing vegetation mapping models.

Completed monitoring:

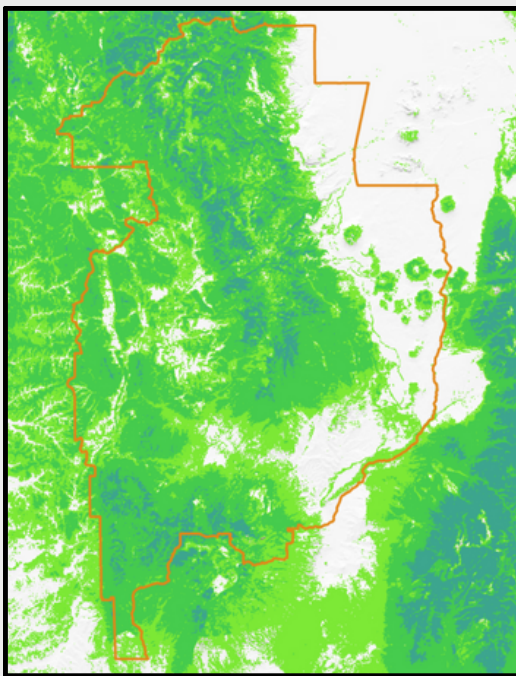
Carbon carrying capacity was not modeled or analyzed in 2023. The R3 Analysis Framework will model carbon carrying and is currently in development for the CFLRP.

Notes from the field:

The R3 Analysis Framework is a vegetation model being developed by US Forest Service Region 3. Due to the differences in available data between Forest Service regions, efforts to align vegetation data for the model run are ongoing. The framework should be run in 2024 and uses vegetation layers to estimate above ground carbon.

There is currently no monitoring effort in place to capture below ground carbon carrying capacity in the Rio Chama CFLRP landscape.





Total forest carbon (in tons/pixel) within the Rio Chama CFLRP. Darker colors represent more carbon storage. Data is based on Forest Inventory and Analysis (FIA) data from 2014-2018.

Table summarizes adaptive management (AM) watch-outs as defined in Edition 1 of the 232 Partnership Multiparty Monitoring plan. AM watch-outs were determined by the 232 Partnership at the February 2023 meeting in Taos, NM. Yellow boxes indicate the watch-out was met, or not measured, and should be considered for collaborative discussion.

AM Watch-out

Commentary

Modeled carbon storage trends do not align with desired conditions for a given forest type.

Desired conditions for carbon storage have not been defined.

Model not accounting for below ground carbon.

The R3 Analysis Framework does not account for below ground carbon.

Monitoring Committee Recommendations and Takeaways

- Make sure we can answer monitoring questions with the data being gathered (invasives monitoring as an example).
- Utilize plots as data-rich sites for testing new scaling frameworks from plot to drone to satellite, leverage new data.
- Define "desired conditions" in AM watch-outs to provide metrics and goals for action.
- There is a lot of work to be done thinking about, and monitoring, large trees.
- Insect and disease monitoring needs to be incorporated into forest plot monitoring.
- Is it fair or useful to compare 232 data to FIA data?

Rio Chama CFLRP monitoring efforts and collaborative discussions are ongoing. Please direct comments and questions to cody@forestguild.org