Data Management Plan

I. Data Management Plan Justification

This project will result in the collection, generation, or compilation of new data including plot-level measurements and aggregation of geospatial datasets.

II. Project Data management

1. Data Types
    Field observations:
    1. Variables: tree height, diameter at breast height, canopy base height, seedling counts, cover of shrubs, forbs, grasses, and surface fuels
    2. Scale: 316 plots throughout the southern rocky mountain ecoregion
    3. Resolution: Plot data (< 1 ha to 10 ha)
    4. Format: CSV files, Shapefiles, Geopackages
    2. Derived data: This project will generate maps of potential treatment longevity for the southern rockies ecoregion.
    3. Geospatial data: Includes aggregated publicly available data including satellite data (e.g. MODIS, SSEBop), shapefiles (e.g. SSURGO), and gridded datasets (e.g. GridMet, LANDFIRE).
2. Quality Assurance
    1. Data analysts at the ARS (Institution 1) and CFRI (Institution 2) will follow standard quality assurance, quality checking procedures as data is entered and throughout the analysis. Original data sheets will be preserved and scanned for reference.
    2. **Data Access** - All data will be stored locally on USDA-ARS servers and on private GitHub repositories for the duration of the project. Only those working on the project will have access to the data while the project is underway. Upon completion of the project, data will be publicly available via USDA ARS SciNet computing and data storage platform.
    3. **Storage and Backup** -Data will be stored on local servers in a climate controlled room with key-card access which are backed up daily to off-site locations. Data will also be stored on private GitHub repositories during the course of the project.

III. Long-Term data Management

3. Metadata
    1. Spatial data sets will be documented using either the FGDC version 2.0 or the ISO 19115 metadata standard. Field collection notes will be entered digitally and provided as metadata. All processing and analysis code will be made available upon request
4. Data Repository
    1. We will utilize the USDA-ARS SciNet computing and data storage platform for long term public access to the data.
5. Data Access
    1. Publicly available after project is complete via the via GitHub and SciNet