1. Exploratory Analyses of Bare Soil & Non-photosynthetic vegetation (NPV)
    a. MESMA rasters for NPV and green veg are in google drive
        i. https://drive.google.com/drive/u/1/folders/1lzjXIRE1RDn9rwpn2X0DVNdcvoL8TaMU
    b. Download NPV and green veg rasters for study years (2006-2017)
        i. Karen will send bare soil data already extracted to grid cells
    c. Extract the fractional coverage of NPV and green veg for each grid cell in the CA grid shapefiles for each month
        i. Sophie has R code you can use as a starting point
        ii. Karen can send shapefile
        iii. Each grid cell is 8km * 8km
    d. Create some exploratory plots:
        i. Bare soil coverage on the x axis, NPV coverage on the y axis
            1. How does it vary?
        ii. Bare soil coverage on the x axis, green veg coverage on the y axis
        iii. Bare soil vs NPV plot, split out by land use type
        iv. Bare soil vs green veg plot, split out by land use type

2. Extract data for SPEI (drought index)
    a. Download precipitation, minimum temperature, and maximum temperature monthly data for study years + lagged years (1981-2017).
        i. Sophie has code
        ii. https://prism.oregonstate.edu/recent/
    b. Extract total precipitation, mean minimum temperature, and mean maximum temperature per month per grid cell from the CA grid shapefile
        i. Sophie has code
        ii. This must be done through SAVIO due to the large file size
        iii. Ideal data product would look like:

Grid Cell	Month	Year	Total Precip	Mean Min T	Mean Max T
1	1	1981	x	y	z
1	2	1981	x	y	z
2	1	1981	x	y	z...

        iv.