**EDIT ecosite data**

**Prerequisite:**

If you are new to R, R and R Studio can be downloaded from the Software Center. Please follow these [instructions](http://ncss-tech.github.io/stats_for_soil_survey/chapters/0_pre-class-assignment/pre-class-assignment.html) for setting up R and downloading packages. You do not need to do Step 6 –Connect Local NASIS, but I recommend doing so to allow R to interact with NASIS for other purposes. It is a very efficient way of accessing NASIS data.

1. **Accessing files**
2. Go to <https://github.com/natearoe/EDIT_ecosite_data>
3. Click the green ‘Code’ button > Download ZIP
4. Find the downloaded zip file, copy, navigate/create a folder where you want all ‘EDIT ecosite data’ workflow files to be stored, paste
5. Right click zip file now stored in new location > Extract all
6. **Determine map units in MLRA of interest:**

I built a Shiny app that allows you to determine what map units are in your MLRA of interest. It can be accessed [here](https://nroe.shinyapps.io/MapunitsInMLRA/). The Shiny app is essentially a way of filtering data produced and maintained by Dylan Beaudette (NRCS Research Soil Scientist). This methodology uses SSURGO data, so if you are using STATSGO data in places where SSURGO isn’t available (such as Alaska and other NOTCOM areas), you will need to determine the map units in your MLRA with a different approach. You can follow the general methodology [here](https://natearoe.github.io/ESS_FAQs/mapunits.html#mapunitsinSSA) to find map units in an MLRA that uses STATSGO data. Ultimately, you need to get a comma separated list of map units from either of the options provided.

1. **Produce NASIS report using map units from Step 1.**
2. NASIS > Reports > MLRA02\_Davis > EXPORT – Ecological site concept data by MUKEY list v4 (originally created by Steve Campbell, modified by Andrew Brown and Nathan Roe)
3. Right click > Run against National Database > paste the comma separated list of map units created from Step 2. > Select “True” for only major components > Run
4. From the HTML created > Ctrl + a > Ctrl c
5. Open Excel > Ctrl + v
6. File > Save as > navigate to the folder with other ‘EDIT ecosite data’ files > drop down ‘Save as type’ > CSV (Comma delimited) > click on “ecosite\_report” > Save > Replace
7. **Determine which ecosites are in MLRA**
8. Open active\_ecosites.Rmd in R Studio
9. Change the file path to your .csv file from Step 3 and change the MLRA of interest defined later in the script. Refer to the top of the active\_ecosites.Rmd for the specific location of where MLRAs are defined as well as instructions replacing file path.
10. Click ‘Knit’ on the toolbar
11. Select and copy the list of ecosites as instructed in the head of the active\_ecosites.Rmd file.
12. Perform QC on this list of ecosites. Sometimes, you might find that a component was correlated to two ecosites. This could result in something like, 'R018XI163CA & R018XD076CA'. These should be removed. Any other ecosites that are clearly erroneous should be removed as well.
13. **Create report for single ecosite**

This step creates a report for a single ecosite. If you want to produce a report for multiple ecosites or all the ecosites in your MLRA, go to Step 6.

1. Open ‘NASIS\_data\_to\_EDIT\_single.Rmd’
2. Follow the instructions in that file to change the file path to your NASIS report created in Step 2.
3. Change the ecosite id code as described in ‘NASIS\_data\_to\_EDIT\_single.Rmd’
4. Click ‘Knit’ from the top toolbar
5. Click ‘Open in Browser’ > right click > Save as > save wherever desired.
6. **Create NASIS report for multiple ecosites**

If you want to produce a report for multiple ecosites (e.g., all the ecosites in your MLRA), you can do that in this step. It will create an HTML file for all your ecosites and will automatically save them with the ecosite id code (i.e. R018XI163CA.html)

1. Open ‘for\_loop\_file.R”
2. Replace the list of ecosites with your list of ecosites created in Step 4. Make sure that you remove any erroneous ecosites. Make sure that the list follows the format of c(‘F018XC201CA’, ‘F018XI205CA’, ‘R018XI163CA’).
3. Change the file path on line 28. The easiest way to do that is to find the 'NASIS\_data\_to\_EDIT\_multiple.Rmd’ in your directory. It should be in the folder with all your other 'EDIT ecosite data' files. Shift + right click > copy as path. Then paste the path in, replacing the existing one on line 28. That path will have backslashes \ these all need to be changed to forwardslashes /
4. Save file
5. Open ‘NASIS\_data\_to\_EDIT\_multiple.Rmd’
6. Follow the instructions in that file to change the file path to your .csv created in Step 3.
7. Save file
8. Re-open ‘for\_loop\_file.R’
9. Ctrl + a then click Run in the top right corner.
10. Html reports for all your ecosites will be in your folder
11. **Mapping ecosites**This script can be used to map ecological sites. Currently, the lines associated with mapping are inactive (this is done by putting a “#” in front of the line. If you want to map your ecosites, remove the “#”.   
    a. Open ‘for\_loop\_file.R’   
    b. Replace lines 23 & 24 with your appropriate SSURGO map units and MLRA boundaries  
    c. Open ‘NASIS\_data\_to\_EDIT\_multiple.R’  
    d. Replace line 4134 with the appropriate MLRASYM (currently set to ‘MLRASYM=23’)  
    e. Replace line 4136 with the appropriate state ID (currently set to “california”)