Web Service Proposal:

This discussion topic is the result of several meetings and several years of discussions regarding the desire to share the laboratory data via a web service, and to incorporate the laboratory data into the NASIS database.

The laboratory data currently is shared via a webpage as printed documents, exported tables, or as a Microsoft Access Database. The divisions of data into tables is rather arbitrary, based up on the desire to make each table fit on an 8 ½ x 11 inch page. A database would not necessarily have that restriction. The advantage of having fewer tables is that there will be less joining and it will be easier to perform calculations on data elements in the same table. The proposal is to add a column of method codes as appropriate after each column of data. This will essentially double the number of columns in each table, but will create a more efficient table strucure for sharing than the current “skinny table” which is now several million records long.

Comment points for laboratory tables:

1. On average keeping the column numbers in each table to 100 columns or less is desirable.
2. Fewer tables are desireable. The current list of 22 tables/views is rather long, and was based on divisions that allowed them to fit on a page when printed.

Andic\_Soil\_Properties

Bulk\_Density\_and\_Moisture

Carbon\_and\_Extractions

CEC\_and\_Bases

Major\_Elements

Mineralogy\_Glass

Mineralogy\_Petro

Mineralogy\_Thermal

Mineralogy\_Xray

Miscellaneous\_Data

Organic

pH\_and\_Carbonates

PSDA\_and\_Rock\_Fragments

Salt

Supplementary\_Tier\_1

Supplementary\_Tier\_2

Supplementary\_Tier\_3

Supplementary\_Tier\_4

Trace\_Elements\_Tier\_1

Trace\_Elements\_Tier\_2

Water\_Content

Water\_Dispersable\_PSDA

To view the current data structure, either download the Microsoft ACCESS database from this site, or run the reports assoiciated with a laboratory pedon/site. <http://ncsslabdatamart.sc.egov.usda.gov/querypage.aspx>

1. The proposed list of 8 data tables to share via a web service is:
2. Physical\_Properties

To include date elements from the following tables:

1. PSDA\_and\_Rock\_Fragments
2. Bulk\_Density\_and\_Moisture
3. Chemical\_Properties
4. CEC\_and\_Bases
5. Carbon\_and\_Extractions
6. pH\_and\_Carbonates
7. Salt
8. Major\_Elements
9. Trace\_Elements
10. Trace\_Elements\_Tier\_1
11. Trace\_Elements\_Tier\_2
12. Mineralogy
13. Mineralogy\_Glass
14. Mineralogy\_Petro
15. Mineralogy\_Thermal
16. Mineralogy\_Xray
17. Water Content
18. Organic\_soils\_Water\_Dispersible\_Psda\_and Miscellaneous\_Data
19. Organic
20. Miscellaneous\_Data
21. Water Dispersible\_PSDA