TECHNICAL NOTES

October 17, 2007

MO-1 Technical Note Number 5 - Revised

Re: Manuscripts - General Soil Map

Typically, the General Soil Map should be developed after digitizing is complete for the survey area. Contact the MO for exceptions. This is a multi-step process involving both the Project Leader and the MO GIS Specialist. Two procedures are described below. The first procedure is for those instances when the Project Leader will use GIS software for part of the process. The second procedure is for those instances when the Project Leader will not use GIS software. In some limited situations, other, methods may be used. Contact the MO if a survey needs to use an alternative method.

Procedure 1- Project Leader uses GIS software to develop General Soil Map.

Step 1. - The Project Leader creates a digital file (i.e., in Excel) where each Map Unit Symbol (MUSYM) is assigned to a General Soil Map Unit (GSMU). This information is entered in the NASIS mapunit text notes and can be obtained from there. Use NASIS text kind of "miscellaneous notes", category of "gsm symbol", and subcategory of the actual general soil map unit symbol. The MO-1 NASIS report "EXPORT - Mapunit Text: selected category" can be used to create the Excel file

Step 2. - The GSMU are incorporated into the digital soils coverage. A map is created with each polygon shaded according to the GSMU.

This map is reviewed and adjustments made in the digital soils coverage using GIS software. Some polygons will probably need to be assigned to a different GSMU for map clarity.

Step 3. - A new General Soil Map coverage is created after these adjustments. This coverage may have very jagged lines that might need to be smoothed. This new coverage is sent to the MO GIS Specialist.

Step 4. - The MO GIS specialist does the final line manipulation and smoothing on the coverage, if needed, in consultation with the Project Leader.

Step 5. - The MO GIS Specialist sends the Project Leader a report with the acreage of each GSMU and the soils included in each. The Project Leader modifies the names, amount, and order of the GSMU legend based on this information, as needed. The MO GIS Specialist incorporates this information into the coverage and legend.

Procedure 2 - Project Leader does not use GIS software to develop General Soil Map

Step 1. - The Project Leader creates a digital file (i.e., in Excel) where each Map Unit Symbol (MUSYM) is assigned to a General Soil Map Unit (GSMU). Use NASIS text kind of "miscellaneous notes", category of "gsm symbol", and subcategory of the actual general soil map unit symbol. The MO-1 NASIS report "EXPORT - Mapunit Text: selected category" can be used to create the Excel file

Step 2. - The GSMU are incorporated into the digital soils coverage. A map is created with each polygon shaded according to the GSMU. This map is sent to the Project Leader for review and adjustments are made as needed. Some polygons will probably need to be assigned to a different GSMU for map clarity. One way to do this is to make a mylar overlay with preferred GSMU lines, using the map sent as a background. The mylar is not for scanning, it is just easier to indicate where the GSMU lines should be on a separate layer. This is sent to the MO GIS Specialist.

Step 3. - The MO GIS Specialist, using the mylar overlay and the GSM digital coverage, converts all the polygons within a certain GSMU to the same GSMU. A new GSM coverage is created after this conversion. This coverage may have very jagged lines that might need to be smoothed.

Step 4. - The MO GIS specialist does the final line manipulation and smoothing on the coverage, if needed, in consultation with the Project Leader.

Step 5. - The MO GIS Specialist sends the Project Leader a report with the acreage of each GSMU and the soils included in each. The Project Leader modifies the names, amount, and order of the general map unit legend based on this information as needed. The GIS Specialist incorporates this information into the coverage and legend.