

December 5, 1995

SUBJECT: SOI - Soil Correlation, Third Amendment to Classification
and Correlation of Wayne County, Indiana

FILE CODE: 430-15-5

TO:

Dennis Lytle Chair, Soils Division NSSC, Mail Stop 32 NRCS, Lincoln, NE

Enclosed are four copies of the Third Amendment to the Classification and Correlation of the Soils of Wayne County, Indiana.

This third amendment is made to correct deficiencies and to maintain the Wayne County Soil Survey. It will also certify the SSURGO data sets for this subset soil survey. The Crosby map units were evaluated and revised as noted in the attached amendment. A detailed explanation of the objectives, procedures and summary is attached to the Third Amendment document. The MUIR data set is being revised to include all the new approved map unit symbols and names. Please add the amended pages to your copy of the Correlation Memorandum, approved February 14, 1984.

Enclosure

cc: Dr. Donald Franzmeier, Purdue University, West Lafayette, IN Travis Neely, SSS/MO leader, NRCS, Indianapolis, IN Jane E. Hardisty, ASTC (FO), NRCS, Indianapolis, IN Donald L. Weaver, DC, NRCS, Richmond, IN William Frederick, Acting SSS, NRCS, East Lansing, MI Jon Gerkin, SS, NRCS, Columbus, OH William Craddock, SSS, NRCS, Lexington, KY Robert L. McLeese SSS, NRCS, Champaign, IL William D. Hosteter, SS, NRCS, Indianapolis, IN Thomas R. Ziegler, SS, NRCS, Indianapolis, IN Byron G. Nagel, SS, NRCS, Indianapolis, IN Gary R. Struben, SS, Muncie, IN Dena Marshall, SS, NRCS, North Vernon, IN Jerry Larson, SS, NRCS, Indianapolis, IN

The Natural Resources Conservation Service, formerly the Soil Conservation Service, is an agency of the United States Department of Agriculture

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United States Department Of Agriculture
Natural Resources Conservation Service (formally Soil Conservation Service)
State Office, Indianapolis, Indiana

December 1, 1995

Third Amendment of the Classification and Correlation of the Soils of Wayne County, Indiana
This amendment was prepared by Byron G. Nagel, Soil Scientist, MO, Indianapolis, Indiana.

Page 2 Change or add the following:

Publication

Symbol Approved Map Unit Name

Change

CrA Crosby silt loam, 1 to 4 percent slopes to: CrA Crosby silt loam, 0 to 2 percent slopes

CtA Crosby silt loam, stony subsoil, 1 to 6 percent slopes to CtB Crosby-Miami silt loams, stony subsoil, 1 to 3 percent

slopes

Add

CrB Crosby-Celina silt loams, 1 to 4 percent slopes

Page 4 Add the following:

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Publication

Symbol Approved Map Unit Name

MwB2 Miami-Crosby silt loams, 2 to 5 percent slopes, eroded

MxB2 Miami-Crosby-Losantville silt loams, stony subsoil, 2 to 6 percent slopes, eroded

Page 5 Add the following:

Publication

Symbol Approved Map Unit Name

W Water

Page 9 - Add

The hydrographic feature small ponds "perennial water" to the Conventional and Special Symbols Legend.

Page 10 - Change or add the following for prime farmland units:

Change

CrA CrA

CtA CtB

Crosby silt loam, 1 to 4 percent slopes to: Crosby silt loam, 0 to 2 percent slopes

Crosby silt loam, stony subsoil, 1 to 6 percent slopes to Crosby -Miami silt loams, stony subsoil, 1 to 3 percent slopes

Add

CrB

MwB2

MxB2

Crosby- Celina silt loams, 1 to 4 percent slopes

Miami - Crosby silt loams, 2 to 5 percent slopes, eroded
Miami- Crosby- Losantville silt loams, stony subsoil, 2 to 6 percent slopes, eroded

Page 12 - Change or add the following for conversion legend of the soil I. D. legend used to update the soil maps:

Field Symbol

CrA

CtA

CrB

LwB2, CtB2

MwB2, CrB2

W, Water

Publication Symbol

CrA CtB CrB MxB2

MwB2

W

Page 15 - Add the following statement to the Notes to Accompany Classification and Correlation of the Soils of Wayne County, Indiana

Orthents, loamy map unit includes areas that are identified as dams on the soil maps.

Approval Signatures

TRAVIS Neely

State Soil Scientist/MO Leader

ROBERT L. EDDLEMAN State Conservationist

1995 Wayne County Soil Survey Update

Many concerns have been expressed about the quality of the survey since it was completed. Prior to digitizing the soil survey, a decision was made to road check some of the commonly noted errors. A field check was completed in March 1995 of units mapped CtA and CrA. The consensus following this review was that map units CrA and CtA could be separated into 2 or 3 map units.

Objective of this update: To separate the CrA and CtA units into slope units which are consistent with map units in surrounding counties and to characterize those units.

Procedure

All CrA and CtA map units were road checked by soil scientists Tom Ziegler (A'SSS), Bill Hosteter (A'SSS) and Gary Struben (PL-Delaware Co.). Resources available included the following:

1. photographs with farm plan mapping completed prior to the beginning of the progressive soil survey

2. photographs with soil mapping completed during the progressive survey but prior to the correlation of A and B slopes units together as one unit

3. Stereo coverage

Road checks were completed in May and June, 1995. Transects were completed on the units. The transect data was analyzed and map unit composition determined.

The following changes and additions to the legend are recommended.

CrA Crosby silt loam, 1 to 4 percent slopes - change to: CrA Crosby silt loam, 0 to 2 percent slopes.

CtA Crosby silt loam, stony subsoil, 1 to 6 percent slopes change to: CtB Crosby-Miami silt loams, stony subsoil, 1 to 3 percent slopes.

CrB Add this unit as Crosby-Celina silt loams, 1 to 4 percent slopes

MwB2 Add this unit as Miami-Crosby silt loams, 2 to 5 percent slopes eroded.

MxB2 Add this unit as Miami-Crosby-Losantville silt loams, stony subsoil, 2 to 6 percent slopes, eroded.

CrA This unit should be named Crosby silt loam, 0 to 2% slopes. One could argue that based on transects the slope is 0 to 1%. We feel that 0 to 2 % is the best call. The units do not have the

super flat look typical of W. Central Indiana, except in a few limited areas. We prefer to ignore the one transect dominated by Starks soil. Starks is likely a common inclusion in parts of the county. Overall, Starks is not a major component. The deep Crosby sola pedons are significant but we considered them as a similar soil for purposes of this project. The CrA unit was not transected in the SE corner of the county. It is mapped in association with Fincastle and Reesville in that corner. Bill Hosteter feels that this corner should be treated as a separate entity so no transects were run. Transects from this area could skew the data and show a thicker silt cap than is typical of most of the county if average depths were calculated.

CrB This unit should be correlated as Crosby-Celina silt loams, 1 to 4 percent slopes. Miamian soils represent 14 percent of the units, but if the Celina and Lewisburg percentages are added together, they represent 18% of the transects. They are both moderately well drained soils. The slope range of transects is 1 to 5 percent. However, the average of the average is 2.3% and 5 of 6 transects have a range of 1 to 4%. 1 to 4% slopes is chosen so that the average slope value of the unit is greater than 2 ($1 + 4 - 2 = 2.5$) and also this range best represents field conditions. This is a 2E map unit.

MwB2 (CrB2) This unit should be correlated as Miami-Crosby silt loams, 2 to 5 percent slopes, eroded. The percentage of Miamian profiles

exceed Miami profile in our transects. However, Miamian is not correlated in the county.

Because we do not have lab data and cannot be sure of the textural family, we will correlate Miami. When the county is updated, lab data should be used to resolve the Miami-Miamian issue. The average of the average slope is 3.4%. This unit needs to be assigned B slope interps. Erosion is mostly class 2, but included is some 1 and some 3. It is possible that this unit may fit the CeB2 unit (Celina) or MmB2 unit (Miami). However, composition of these units needs to be determined prior to making that decision. The issue was not pursued because of time constraints and also because numerous changes would likely be required on the maps.

CtB This unit should be correlated as Crosby-Miami silt loams, stony subsoil, 1 to 3 percent slopes.

The stony subsoil is used to be consistent with other units in the moraine area. None of the reviewers noted stones on the surface, piled in fence rows or in the soils in concentrations greater than most of the till plain in central Indiana. Two points in favor of keeping the stony subsoil:

1. Don Weaver (DC) told us there is strong local support for noting the stoniness of the area.
2. It was noted in some areas (particularly in the NE corner on sheets 5,6 and 12) that there was a noticeable amount of cobbles and channers on the surface. Bill reported in a few

areas the surface was cobbly. Perhaps the cobbles and channers affect tiling operations to the point where tiling contractors refer to them as stones. Bill suggests that some units could be called cobbly but did not encounter stones sufficient for stony phases. However, it is important to maintain consistency with previous mapping.

The slope range is 1 to 6 and the average of the average of the individual transects is 1.6 percent. A 1 to 3 percent slope unit is the best choice for the following reasons:

1. reflects slight roll in landscape
2. joins with Randolph Co. 1 to 3% map unit.

MxB2 (CtB2) This unit should be correlated as Miami-Crosby-Losantville silt loams, stony subsoil; 2 to 6 percent slopes, eroded.

Same logic as CtB on stony subsoil criteria. Miamian represents about 27 percent of the transects. We believe that Miamian is needed in the county, but lab data and additional checking is needed. The slope range is 1 to 9 and the average of the average of the individual transects is 4.

Transects and other notes are on file in the state office.

Notes summarized by Bill Hosteter, Tom Ziegler, and Gary Struben.