

**United States Department of Agriculture  
Natural Resources Conservation Service  
MLRA 11 Office, Indianapolis, Indiana  
September 2004**

**First Amendment of the Classification and Correlation of the Soils of Jefferson County, Indiana**

This first amendment was prepared by and Byron G. Nagel, MLRA Project Leader, North Vernon, Indiana and Gary R. Struben, Soil Data Quality Specialist, MLRA Region 11, Indianapolis, Indiana.

**Pages 2-6**, the following field symbols, field map unit name, publication symbol and approved map unit name are added in preparation for completing an exact join in the future with the updated Clark and Scott Soil Surveys, the Jennings County Soil Survey (being updated), and the Switzerland and Ripley published surveys:

Field symbol- BaA

Field map unit name- Bartle silt loam, 0 to 2 percent slopes

*Publication symbol- BaA*

*Approved map unit name- Bartle silt loam, 0 to 2 percent slopes*

Field symbol- BmC

Field map unit name- Bloomfield loamy fine sand, 4 to 12 percent slopes

*Publication symbol- BmC*

*Approved map unit name- Bloomfield loamy fine sand, 4 to 12 percent slopes*

Field symbol- BpE5

Field map unit name- Bonnell-Hickory clay loams, 15 to 30 percent slopes, gullied

*Publication symbol- BpE5*

*Approved map unit name- Bonnell-Hickory clay loams, 15 to 30 percent slopes, gullied*

Field symbol- DfA

Field map unit name- Dubois silt loam, 0 to 2 percent slopes

*Publication symbol- DfA*

*Approved map unit name- Dubois silt loam, 0 to 2 percent slopes*

Field symbol- HcD2

Field map unit name- Haggatt-Caneyville silt loams, 12 to 25 percent slopes, eroded

*Publication symbol- HcD2*

*Approved map unit name- Haggatt-Caneyville silt loams, 12 to 25 percent slopes, eroded*

Field symbol- HdB2

Field map unit name- Haubstadt silt loam, 2 to 6 percent slopes, eroded

*Publication symbol- HdB2*

*Approved map unit name- Haubstadt silt loam, 2 to 6 percent slopes, eroded*

Field symbol- HeC3

Field map unit name- Haubstadt-Shircliff complex, 6 to 15 percent slopes, severely eroded

*Publication symbol- HeC3*

*Approved map unit name- Haubstadt-Shircliff complex, 6 to 15 percent slopes, severely eroded*

Field symbol- HeC2

Field map unit name- Haubstadt-Shircliff silt loams, 6 to 15 percent slopes, eroded

*Publication symbol- HeC2*

*Approved map unit name- Haubstadt-Shircliff silt loams, 6 to 15 percent slopes, eroded*

Field symbol- MdB2

Field map unit name- Medora silt loam, 2 to 6 percent slopes, eroded

*Publication symbol- MdB2*

*Approved map unit name- Medora silt loam, 2 to 6 percent slopes, eroded*

Field symbol- NgD3

Field map unit name- Negley clay loam, 12 to 22 percent slopes, severely eroded

*Publication symbol- NgD3*

*Approved map unit name- Negley clay loam, 12 to 22 percent slopes, severely eroded*

Field symbol- OdA

Field map unit name- Oldenburg loam, occasionally flooded

*Publication symbol- OdA*

*Approved map unit name- Oldenburg loam, occasionally flooded*

Field symbol- PkA

Field map unit name- Pekin silt loam, 0 to 2 percent slopes

*Publication symbol- PkA*

*Approved map unit name- Pekin silt loam, 0 to 2 percent slopes*

Field symbol- PoA

Field map unit name- Peoga silt loam

*Publication symbol- PoA*

*Approved map unit name- Peoga silt loam*

Field symbol- ScA

Field map unit name- Scottsburg silt loam, 0 to 2 percent slopes

*Publication symbol- ScA*

*Approved map unit name- Scottsburg silt loam, 0 to 2 percent slopes*

Field symbol- ScB2

Field map unit name- Scottsburg silt loam, 2 to 4 percent slopes, eroded

*Publication symbol- ScB2*

*Approved map unit name- Scottsburg silt loam, 2 to 4 percent slopes, eroded*

Field symbol- Wa

Field map unit name- Wakeland silt loam, occasionally flooded

*Publication symbol- Wa*

*Approved map unit name- Wakeland silt loam, occasionally flooded*

Field symbol- WgB2

Field map unit name- Weisburg silt loam, 2 to 6 percent slopes, eroded

*Publication symbol- WgB2*

*Approved map unit name- Weisburg silt loam, 2 to 6 percent slopes, eroded*

Field symbol- WgC2

Field map unit name- Weisburg silt loam, 6 to 12 percent slopes, eroded

*Publication symbol- WgC2*

*Approved map unit name- Weisburg silt loam, 6 to 12 percent slopes, eroded*

Field symbol- WmA

Field map unit name- Whitcomb silt loam, 0 to 2 percent slopes

*Publication symbol- WmA*

*Approved map unit name- Whitcomb silt loam, 0 to 2 percent slopes*

Field symbol- Wr  
Field map unit name- Wilbur silt loam, occasionally flooded  
*Publication symbol- Wr*  
*Approved map unit name- Wilbur silt loam, occasionally flooded*

Field symbol- Wz  
Field map unit name- Wirt silt loam, frequently flooded  
*Publication symbol- Wz*  
*Approved map unit name- Wirt silt loam, frequently flooded*

**Pages 2-6, Change the following:**

Publication symbol- EfF  
Approved map unit name- Eden flaggy silty clay loam, 25 to 50 percent slopes  
*Publication symbol- EfF*  
*Approved map unit name- Eden flaggy silty clay, 25 to 50 percent slopes*

Publication symbol- Ha  
Approved map unit name- Haymond silt loam, occasionally flooded  
*Publication symbol- Hg*  
*Approved map unit name- Haymond silt loam, occasionally flooded*

Field symbol- Pu  
Field map unit name- Pits, quarries  
*Publication symbol- Pu*  
*Approved map unit name- Pits, quarry*

Field symbol- W  
Field map unit name- Water less than 40 acres in size  
*Publication symbol- W*  
*Approved map unit name- Water*

Field symbol- W4  
Field map unit name- Water areas more than 40 acres in size  
*Publication symbol- W*  
*Approved map unit name-Water*

**Pages 7-8, add the following**

**Series Established by this amendment:** None

**Series made Inactive by this amendment:** None

**Series not correlated in the 1985 Soil Survey of Jefferson County, but correlated in this Amendment 1, and therefore added:**

Bartle, Bloomfield, Dubois, Haggatt, Haubstadt, Medora, Oldenburg, Peoga, Scottsburg, Shircliff, Wakeland, Weisburg, Whitcomb, and Wilbur

**Conventional and Special Symbols Legend**

**Page 9** – Replace the 37A dated 7/80, with the attached Indiana Official 37A for Compilation, Digitizing, and DMF, Revised June 30, 2004.

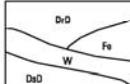
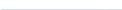
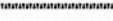
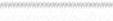
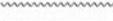
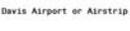
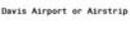


## FEATURE AND SYMBOL LEGEND FOR SOIL SURVEY

Soil Survey Area: \_\_\_\_\_

Date: AUGUST 2004

State: Indiana \_\_\_\_\_

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
<b>SOIL SURVEY FEATURES</b>		<b>CULTURAL FEATURES (Optional)</b>		<b>HYDROGRAPHIC FEATURES (Optional)</b>	
SOIL DELINEATIONS AND LABELS		BOUNDARIES		Drainage end (indicates direction of flow)	
STANDARD LANDFORM AND MISCELLANEOUS SURFACE FEATURES		National, state or province		Undersized stream	
<b>Bedrock escarpment</b>		County or parish			
<b>Nonbedrock escarpment</b>		Minor civil division			
<b>Gully</b>		Reservation (Military)			
<b>Levee</b>		Land grant (Optional)			
<b>Short steep slope</b>		Field sheet matchline and neatline			
Blowout		Public Land Survey System Section Corner Tics			
Borrow pit		GEOGRAPHIC COORDINATE TICK			
Clay spot		<b>ROAD EMBLEMS</b>			
Closed depression		Interstate			
Gravel pit		Federal			
<b>Gravelly spot</b>		State			
<b>Landfill</b>		LOCATED OBJECTS			
Marsh or swamp		Airport (Label only)		Davis Airport or Airstrip	
<b>Mine or quarry</b>					
<b>Rock outcrop</b>					
<b>Sandy spot</b>					
<b>Severely eroded spot</b>					
Sinkhole					
Slide or slip					
Spill area					
Stony spot					
Very stony spot					
<b>Wet spot</b>					
<b>AD HDG FEATURES (Describe on back)</b>					
LABEL	SYMBOL ID	SYMBOL	LABEL	SYMBOL ID	SYMBOL
DCS	1		CRG	23	
DKS	2		WEA	24	
QVM	3		CGM	25	
VMS	4		HIL	26	
EAS	5		STD	28	
MAS	6				
SAS	7				
CAF	8		WOC	30	
CAL	9				
SLR	10				
DUM	11				
BRV	12				
DSW	13		WIL	35	
BRD	14				
QGR	15				
SSR	16		SAM	38	
LBR	17				
WOP	18		VGE	40	
SBR	19				
COB	20				
CMS	21				
FES	22				

Only the following standard soil survey features will be shown on the legend and placed on the digitized soil maps:

<u>Feature</u>	<u>Name</u>	<u>Description</u>
ESB	Escarpment, bedrock	A relatively continuous and steep slope or cliff, which was produced by erosion or faulting, that breaks the general continuity of more gently sloping land surfaces. Exposed material is hard or soft bedrock.
ESO	Escarpment, nonbedrock	A relatively continuous and steep slope or cliff, which generally is produced by erosion but can be produced by faulting, that breaks the continuity of more gently sloping land surfaces. Exposed earthy material is nonsoil or very shallow soil.
GRA	Gravelly spot	Surface layer has more than 35 percent, by volume, of rock fragments that are mostly less than 3 inches in diameter in an area with less than percent fragments. Typically 0.2 to 2 acres.
GUL	Gully	A small channel with steep sides cut by running water through which water ordinarily runs only after a rain, or after ice or snow melts. It generally is an obstacle to wheeled vehicles and is too deep to be obliterated by ordinary tillage.
LDF	Landfill	An area of accumulated waste products of human habitation that can be above or below natural ground level. Typically 0.2 to 5 acres.
LVS	Levee	An embankment that confines or controls water, especially one built along the banks of a river to prevent overflow of lowlands. Levees built according to COE standards.
MPI	Mine or quarry	An open excavation from which soil and underlying material are removed and bedrock is exposed. Also denotes surface openings to underground mines. Typically 0.2 to 2 acres.
SAN	Sandy spot	A spot where the surface layer is loamy fine sand or coarser in areas where the surface layer of the named soils in the surrounding map unit is very fine sandy loam or finer. Typically 0.2 to 2 acres.
ROC	Rock outcrop	An exposure of bedrock at the surface of the earth. Not used where the named soils of the surrounding map unit are shallow over bedrock or where "Rock outcrop" is a named component of the map unit. Typically 0.2 to 2 acres.
ERO	Severely eroded spot	An area where on the average 75 percent or more of the original surface layer has been lost because of accelerated erosion. Not used in map units that are named severely eroded, very severely eroded, or gullied. Typically 0.2 to 2 acres.
SLP	Short, steep slope	Narrow soil area that has slopes that are at least two slope classes steeper than the slope class of the surrounding map unit.
WET	Wet spot	A somewhat poorly drained to very poorly drained area that is at least two drainage classes wetter than the named soils in the surrounding map unit. Typically 0.2 to 2 acres.

Only the following ad hoc features will be shown on the legend and placed on the digitized soil maps:

<u>Label</u>	<u>Symbol ID</u>	<u>Name</u>	<u>Description</u>
UWT	44	Unclassified water	Small, natural or man-made lake, pond, or pit that contains water, of an unspecified nature, most of the year. Typically 0.2 to 2 acres.

**Delete the following cultural and water features:**

Small cemetery  
Railroad  
Large dams  
Medium or small  
Farmstead  
Church  
School  
Spring

**Page 10**, Revise the Prime Farmland List as follows:

Add the following map units:

BaA Bartle silt loam, 0 to 2 percent slopes (where drained)  
DfA Dubois silt loam, 0 to 2 percent slopes (where drained)  
HdB2 Haubstadt silt loam, 2 to 6 percent slopes, eroded  
Hg Haymond silt loam, occasionally flooded  
MdB2 Medora silt loam, 2 to 6 percent slopes, eroded  
OdA Oldenburg loam, occasionally flooded  
PkA Pekin silt loam, 0 to 2 percent slopes  
PoA Peoga silt loam (where drained)  
ScA Scottsburg silt loam, 0 to 2 percent slopes  
ScB2 Scottsburg silt loam, 2 to 4 percent slopes, eroded  
Wa Wakeland silt loam, occasionally flooded (where drained)  
WgB2 Weisburg silt loam, 2 to 6 percent slopes, eroded  
WmA Whitcomb silt loam, 0 to 2 percent slopes (where drained)  
Wr Wilbur silt loam, occasionally flooded  
Wz Wirt silt loam, frequently flooded (Prime farmland if protected from flooding or not frequently flooded during the growing season)

**Page 14**, add the following soil map units to the Conversion Legend  
(\* used on original field sheets and converted to other  
publication symbols, but added for joining with map units  
with adjacent survey areas:

<u>Field Symbol</u>	<u>Publication symbol</u>
*BaA	BaA
BmC	BmC
BpE5	BpE5
DfA	DfA
HcD2	HcD2
HdB2	HdB2
HeC2	HeC2
HeC3	HeC3
Ha	Hg
MdB2	MdB2
NgD3	NgD3
OdA	OdA
PkA	PkA
PoA	PoA
ScA	ScA
ScB2	ScB2
*Wa	Wa
W4	W
*WgB2	WgB2
*WgC2	WgC2
WmA	WmA
Wr	Wr
Wz	Wz

**Pages 15-17**, add the following notes:

### **Notes to Accompany Classification and Correlation of the Soils of Jefferson County, Indiana**

#### Bartle Series

The Bartle soils correlated in Jefferson County are adjacent to Scott and Jennings Counties. In addition, the 1982 CM indicates some Bartle map units were included with the Pekin (PkB) map units, and therefore when this survey is updated, Bartle units will likely be split out of the Pekin units.

#### Bloomfield Series

The Bloomfield series has slightly higher clay content in the lamellae, and therefore classify in the coarse-loamy family, instead of sandy family. They are considered taxadjuncts.

#### Crider Variant

The tentative Zenas series (Jennings County update) fits the classification, series concept and RIC of the Crider variant in Jefferson County, and will be used when this survey is updated.

#### Dearborn Series

The Dearborn series is highly variable in its properties. The thicker solum, lower clay content in the subsoil, and higher content of rock fragments in some of the horizons are considered similar included soils. The classification of Dearborn soils in Jefferson County is the same as the OSD, and therefore is no longer considered a taxadjunct.

## **Notes to Accompany Classification and Correlation of the Soils of Jefferson County, Indiana-continued**

### Eden Series

The OM free lab data for the surface layer from Jefferson County and data from adjacent counties is dominantly silty clay. Therefore, the surface layer for the Eden soils in the EfF and CaF map units is changed from flaggy silty clay loam to flaggy silty clay.

### Negley Series

The Negley soils meet the current classification of fine-loamy, mixed, active, mesic Typic Paleudalfs, and therefore is not considered to be a taxadjunct. The lower rock fragment content in the 2Bt and 2BC horizons is outside the current series RIC.

### Pekin Series

The classification of the Pekin Series has changed from a fragiudalf to fragiudult since the 1982 CM, and therefore is longer a taxadjunct.

### Shircliff Series

Shircliff soils in a complex with the Haubstadt units (HeC2, HeC3) may not be a major component in the area where these map units join Scott County.

### Markland Series

Markland soils described in the 1985 soil survey and field notes that represent the MaB2 and MaC2 map units are indicated to have redox depletions above 40 inches, and therefore would meet the classification and interpretations of the Shircliff soils that were established after this survey was completed. The Markland soils classify as Fine, mixed, active, mesic Oxyaquic Hapludalfs, and are considered to be taxadjuncts.

### Rossmoyne Series

The CEC activity class of the Rossmoyne soils is in the active class, instead of the superactive class. They are considered taxadjuncts.

### Scottsburg Series

The Scottsburg soils were establish after the 1982 correlation of Jefferson County. These soils are in the same landform position as Deputy (DeB2) map units. The Deputy map units will need to be investigated to determine the composition and extent of the Scottsburg soils.

### Trappist Series

The Trappist soils meet the current classification of fine, mixed, semiactive, mesic Typic Hapludults, and therefore are no longer considered to be a taxadjunct.

### Weisburg Series

These soils were included with the Cincinnati soils in the 1982 CM. These soils are added to join with Weisburg map units joining from Switzerland County. In addition, preliminary study of the Nicholson map units indicate that some of these areas in Jefferson County are likely to be re-correlated to the Weisburg soils

**Pages 18-19**, Replace the Classification of the Soils with the following:

Jefferson County, Indiana

Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series. See text for a description of those characteristics that are outside the range of the series.)

Soil name	Family or higher taxonomic class
Avonburg-----	Fine-silty, mixed, active, mesic Aerlic Fragic Glossaqualfs
Bartle-----	Fine-silty, mixed, active, mesic Aerlic Fragiaqualfs
Beasley-----	Fine, mixed, active, mesic Typic Hapludalfs
*Bloomfield-----	Coarse-loamy, mixed, active, mesic Lamellic Hapludalfs
Bonnell-----	Fine, mixed, active, mesic Typic Hapludalfs
Caneyville-----	Fine, mixed, active, mesic Typic Hapludalfs
Carmel-----	Fine, vermiculitic, mesic Vertic Hapludalfs
Cincinnati-----	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
Cobbsfork-----	Fine-silty, mixed, active, mesic Fragic Glossaqualfs
Crider Variant--	Fine-silty, mixed, active, mesic Typic Hapludalfs
Dearborn-----	Loamy-skeletal, mixed, superactive, mesic Fluventic Hapludolls
Deputy-----	Fine-silty, mixed, active, mesic Aquic Hapludults
Dubois-----	Fine-silty, mixed, active, mesic Aerlic Fragiaqualfs
Eden-----	Fine, mixed, active, mesic Typic Hapludalfs
Elkinsville-----	Fine-silty, mixed, active, mesic Ultic Hapludalfs
Grayford-----	Fine-loamy, mixed, active, mesic Ultic Hapludalfs
Haggatt-----	Fine, mixed, active, mesic Typic Hapludalfs
Haubstadt-----	Fine-silty, mixed, active, mesic Aquic Fragiudalfs
Haymond-----	Coarse-silty, mixed, superactive, mesic Dystric Fluventic Eutrudepts
Hickory-----	Fine-loamy, mixed, active, mesic Typic Hapludalfs
Holton-----	Coarse-loamy, mixed, active, nonacid, mesic Aerlic Endoaquepts
Huntington-----	Fine-silty, mixed, active, mesic Fluventic Hapludolls
Jennings-----	Fine-silty, mixed, active, mesic Typic Fragiudults
*Markland-----	Fine, mixed, active, mesic Oxyaquic Hapludalfs
Medora-----	Fine-silty, mixed, active, mesic Typic Fragiudults
Negley-----	Fine-loamy, mixed, active, mesic Typic Paleudalfs
Nicholson-----	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
Oldenburg-----	Coarse-loamy, mixed, active, mesic Fluvaquentic Eutrudepts
Pate-----	Fine, illitic, mesic Vertic Hapludalfs
Pekin-----	Fine-silty, mixed, active, mesic Aquic Fragiudults
Peoga-----	Fine-silty, mixed, superactive, mesic Fragic Epiaqualfs
Rahm-----	Fine-silty, mixed, active, nonacid, mesic Fluvaquentic Endoaquepts
*Rossmoyne----	Fine-silty, mixed, active, mesic Aquic Fragiudalfs
Ryker-----	Fine-silty, mixed, active, mesic Typic Paleudalfs
Scottsburg-----	Fine-silty, mixed, semiactive, mesic Aquic Hapludults
Shircliff-----	Fine, mixed, active, mesic Oxyaquic Hapludalfs
Switzerland-----	Fine-silty over clayey, mixed, superactive, mesic Oxyaquic Hapludalfs
Trappist-----	Fine, mixed, semiactive, mesic Typic Hapludults
Udorthents-----	Udorthents
Wakeland-----	Coarse-silty, mixed, superactive, nonacid, mesic Aerlic Fluvaquents
Weisburg-----	Fine-silty, mixed, active, mesic Oxyaquic Fragiudalfs
Whitcomb-----	Fine-silty, mixed, active, mesic Aerlic Paleaquults
Wilbur-----	Coarse-silty, mixed, superactive, mesic Fluvaquentic Eutrudepts
Wirt-----	Coarse-loamy, mixed, superactive, mesic Dystric Fluventic Eutrudepts

**First Amendment of the Classification and Correlation of the Soils of Jefferson County, Indiana**

**Approval Signatures and Date**

\_\_\_\_\_  
TRAVIS NEELY  
State Soil Scientist/MLRA Leader

\_\_\_\_\_  
Date

\_\_\_\_\_  
JANE E. HARDISTY  
State Conservationist

\_\_\_\_\_  
Date