

**OCTOBER UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE**

***MLRA REGION 11  
Indianapolis, Indiana 46278***

**SECOND AMENDMENT to the  
NOVEMBER 1979 CLASSIFICATION AND CORRELATION  
of the SOILS of CASS COUNTY, INDIANA**

**JANUARY 2005**

This amendment results from recertifying the SSURGO data of the Cass County Soil Survey, the update of the NASIS database, and conforming to the Keys to Soil Taxonomy, 9<sup>th</sup> Edition, 2003.

**AMENDMENT NO. 2**

**Page 4,** For Pub. Symbol - Sh - Change the Approved Mapping Unit Name:

From: Shoals silt clay loam, frequently flooded

To: Shoals silty clay loam, frequently flooded

**Page 7** – Replace the 37A dated June 28, 2001, with the attached Indiana Official 37A for Compilation, Digitizing, and DMF, Revised June 30, 2004.

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

<b><u>Feature</u></b>	<b><u>Name</u></b>	<b><u>Description</u></b>
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 with component phases that are named severely eroded, very severely eroded, or gullied. Typically 0.2 to 2 acres.
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, non-bedrock	A relatively continuous and steep slope or cliff that generally is produced by erosion but can be produced by faulting, which breaks the continuity of more gently sloping land surfaces. Exposed earthy material is nonsoil or very shallow soil.
GPI	Gravel pit	An open excavation from which soil and underlying material have been removed and used, without crushing, as a source of sand or gravel. Typically 0.2 to 2 acres.
GRA	Gravelly spot	A spot where the surface layer has more than 35 percent, by volume, rock fragments that are mostly less than 3 inches in diameter in an area with less than 15 percent fragments. Typically 0.2 to 2 acres.

<u>Feature</u>	<u>Name</u>	<u>Description</u>
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.
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.
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:

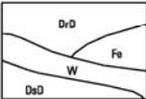
<u>Label</u>	<u>Symbol ID</u>	<u>Name</u>	<u>Description</u>
MUC	30	Muck spot	An area within a poorly drained or very poorly drained soil that has a histic epipedon or where the surface is organic. The spot symbol is used only in map units consisting of mineral soil. Typically 0.2 to 2 acres.
SAM	38	Small dam	Small, earthen dam. Typically 0.2 to 2 acres.
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.

# FEATURE AND SYMBOL LEGEND FOR SOIL SURVEY

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

OCTOBER 2004  
Date: \_\_\_\_\_

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		<b>BOUNDARIES</b>		Drainage end (indicates direction of flow)	
STANDARD LANDFORM AND MISCELLANEOUS SURFACE FEATURES		National, state or province	-----	Unclassified stream	-----
<b>Bedrock escarpment</b>	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	County or parish	-----		
<b>Nonbedrock escarpment</b>	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	Minor civil division	-----		
Gully	~~~~~	Reservation (Military)	-----		
Levee		Land grant (Optional)	-----		
<b>Short steep slope</b>	.....	Field sheet matchline and neatline	-----		
Blowout	∩	Public Land Survey System Section Corner Tics	L + +		
Borrow pit	⊠				
Clay spot	⊕	<b>GEOGRAPHIC COORDINATE TICK</b>	+		
Closed depression	⊖				
<b>Gravel pit</b>	⊗	<b>ROAD EMBLEMS</b>			
<b>Gravelly spot</b>	⊘	Interstate			
Landfill	⊙	Federal			
Marsh or swamp	∩	State			
Mine or quarry	⊗				
<b>Rock outcrop</b>	∩	<b>LOCATED OBJECTS</b>			
<b>Stony spot</b>	⊗	Airport (Label only)	Davis Airport or Airstrip		
<b>Severely eroded spot</b>	⊗				
Sinkhole	⊖				
Slide or slip	} >				
Spoil area	E				
Stony spot	⊙				
Very stony spot	⊙				
<b>Wet spot</b>	∩				
<b>AD HOC FEATURES (Describe on back)</b>					
<b>LABEL</b>	<b>SYMBOL ID</b>	<b>SYMBOL</b>	<b>LABEL</b>	<b>SYMBOL ID</b>	<b>SYMBOL</b>
DCS	1	⊖	CRO	23	⊙
DKS	2	⊠	MIA	24	⊙
OVW	3	⊠	CGM	25	⊙
VWS	4	⊗	HIL	26	⊙
EAS	5	⊠	27	27	⊙
WAS	6	⊗	SID	28	⊙
SAS	7	⊗	29	29	⊙
CAF	8	⊗	<b>MUC</b>	<b>30</b>	⊙
CAL	9	⊗	31	31	⊙
SLR	10	⊙	32	32	⊙
DUM	11	⊗	33	33	⊙
BRV	12	∩	34	34	⊙
BRM	13	∩	MRL	35	⊙
BRD	14	∩	36	36	∩
OBR	15	∩	37	37	+
SSR	16	⊗	<b>EAM</b>	<b>38</b>	⊙
LBR	17	⊗	39	39	⊙
WDP	18	⊗	VSE	40	⊙
SBR	19	⊗	41	41	⊙
COB	20	⊗	42	42	⊙
CWS	21	⊙	43	43	∩
FES	22	⊙	<b>UNT</b>	<b>44</b>	⊙

**Page 12 – Replace the Classification of the Soils table with the following:**

Cass County, Indiana  
Classification of the Soils

(An asterisk in the first column indicates a taxadjunct to the series.)

Soil name	Family or higher taxonomic class
Ackerman-----	Sandy, mixed, mesic Histic Humaquepts
*Bloomfield-----	Sandy, mixed, mesic Lamellic HapludalFs
Blount-----	Fine, illitic, mesic Aeric EpiaqualFs
Chelsea-----	Mixed, mesic Lamellic Udipsamments
Crosier-----	Fine-loamy, mixed, active, mesic Aeric EpiaqualFs
Cyclone-----	Fine-silty, mixed, superactive, mesic Typic Argiaquolls
Fincastle-----	Fine-silty, mixed, superactive, mesic Aeric EpiaqualFs
Gessie Variant-----	Fine-loamy over sandy or sandy-skeletal, mixed superactive, calcareous, mesic Typic Udifluvents
Gilford-----	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
*Gilford-----	Coarse-loamy, mixed, superactive, mesic Typic Endoaquolls
Glynnwood-----	Fine, illitic, mesic Aquic HapludalFs
Hennepin-----	Fine-loamy, mixed, active, mesic Typic Eutrudepts
Houghton-----	Euic, mesic Typic Haplosaprists
*Kosciusko-----	Fine-loamy, mixed, active, mesic Typic HapludalFs
*Maumee-----	Sandy, mixed, mesic Typic Endoaquolls
Metea-----	Loamy, mixed, active, mesic Arenic HapludalFs
Miami-----	Fine-loamy, mixed, active, mesic Oxyaquic HapludalFs
Millsdale-----	Fine, mixed, active, mesic Typic Argiaquolls
Morley-----	Fine, illitic, mesic Oxyaquic HapludalFs
Morocco-----	Mixed, mesic Aquic Udipsamments
*NewGlarus-----	Fine-silty over clayey, mixed, superactive, mesic Typic HapludalFs
Oakville-----	Mixed, mesic Typic Udipsamments
Ormas-----	Loamy, mixed, active, mesic Arenic HapludalFs
Patton-----	Fine-silty, mixed, superactive, mesic Typic Endoaquolls
Rensselaer-----	Fine-loamy, mixed, superactive, mesic Typic Argiaquolls
Riddles-----	Fine-loamy, mixed, active, mesic Typic HapludalFs
Rush-----	Fine-silty, mixed, superactive, mesic Typic HapludalFs
Russell-----	Fine-silty, mixed, superactive, mesic Typic HapludalFs
Shoals-----	Fine-loamy, mixed, superactive, nonacid, mesic Fluvaquentic Endoaquepts
*Sleeth-----	Fine-loamy, mixed, active, mesic Aeric EndoaqualFs
Starks-----	Fine-silty, mixed, superactive, mesic Aeric EndoaqualFs
Stonelick-----	Coarse-loamy, mixed, superactive, calcareous, mesic Typic Udifluvents
Wawasee-----	Fine-loamy, mixed, active, mesic Typic HapludalFs
Xenia-----	Fine-silty, mixed, superactive, mesic Aquic HapludalFs

The \*Gilford taxadjunct is for map unit Gg only.

**CASS COUNTY, INDIANA  
AMENDMENT NO. 2**

**Approval Signatures**

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

\_\_\_\_\_  
Date

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

\_\_\_\_\_  
Date