



United States
Department of
Agriculture

Soil
Conservation
Service

6013 Lakeside Boulevard
Indianapolis, Indiana 46278

Record

December 3, 1993

INDIANA BULLETIN NO. IN180-4-3

SUBJECT: CPA - FSA/FACTA - Procedure For On-Site
Determinations Of Highly Erodible (HE) Or
Non-Highly Erodible (NHE) Map Unit

Purpose. To establish the procedure for on-site determination of highly erodible (HE) or non-highly erodible (NHE) map units.

Expiration Date. September 30, 1994

The National Food Security Act Manual (NFSAM) in Part 511, Subpart C, does not define a procedure to determine if a Potentially Highly Erodible (PHE) soil map unit is Highly Erodible (HE) or Non-Highly Erodible (NHE). It also does not define predominance. To be consistent on all appeals and status and quality reviews, the following establishes a procedure to determine HE or NHE, and to define predominance.

Soil map units initially identified as PHE, or questionable HE map units, will be measured in the field to determine if each map unit delineation, as an entity in the field, is an HE or an NHE soil map unit. The procedure for this determination is as follows:

1. Determine if the existing soil map appears to be correct. If the soil map appears incorrect, it should be brought to the attention of a soil scientist to make a determination whether it is correct or not. If the map is incorrect, a soil scientist should correct the soil map specifically for this use.
2. Visually establish map unit boundaries on the landscape. Visually locate areas in the field with minimum, dominant and maximum slope gradients that could be separated and recorded at a scale used for soil mapping. Use reasonable judgement and do not make extremely small delineations. Minimum size delineations should be approximately three (3) acres.
3. Using FOTG, Section I-iv & see II-iii-A(2) determine LS factor that will result in an Erosion Index (EI) of 8 or greater.



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4. Measure the slope length and determine LS values for at least two locations in each map unit delineation. LS values are to be determined using procedures outlined in Agricultural Handbook 537. Slope length measurements begin at the beginning point of overland flow and are not restricted upslope by map unit or field boundaries. Slope length terminates at the point of deposition, entry into concentrated flow, the lower map unit boundary, or field boundary on the downslope portion of the slope length.

5. Delineate in red pencil on the aerial photocopy the location of each measurement.

6. Document measurements and other information on IN-CPA-26, see attachment.

7. For each delineation of a PHE or HE map unit in a field, the extent of the delineation with an EI equal to or greater than 8 should be evaluated. If the EI is 8 or greater for 75 percent or more of the map unit delineation, the map unit is considered HE. If it is less than 75 percent of the delineation, the map unit delineation is considered NHE.

8. Acreages of all map unit delineations with HE status from step 7 will be added to determine if the field is HE or NHE. If the HE map units in a field constitute 33.33 percent or more of the acreage in the field or 50 acres or more in the field, then the field is HE.

BACKGROUND INFORMATION FOR 75 PERCENT PREDOMINANCE OF THE MAP UNIT DELINEATION

The predominance of 75 percent is based on the criteria for naming map units in soil surveys. The criteria is on pages 60 and 61 in the draft Soil Survey Manual, 1990. As a rule, at least 50 percent of the soil components in a map unit delineation consists of the soils for which the map unit is named. Most of the remainder of the delineation consists of soil components so similar to the named soil that the major interpretations are not affected significantly. The total amount of dissimilar inclusions of other components in a map unit generally do not exceed about 15 percent, if limiting and 25 percent if nonlimiting.

An example would be Morley 2 to 6 percent slopes, eroded, which is HE. At least 50 percent of the unit would reflect the named component (Morley 2 to 6 percent slopes eroded). Another 25 percent of the map unit could be similar components which have the HE classification (similar interpretation). The remaining 25 percent of the map unit could be components which have another HE classification, such as NHE. In some map unit delineations, the named component could constitute as much as 100 percent of the map unit, or in others less than 50 percent if most of the remainder of the map unit consists of similar soils to the named soils.

The same rules apply for complexes (map unit with more than one named component) in determining percentages as described above for map units with one named component. The first soil component named in a complex is the dominant soil. Therefore, the K and T values for that soil are to be used for calculating HE status.

For example, Crosby-Miami complex, 2-6 percent slopes, eroded, a T value of 3 (Crosby value) is used rather than a T value of 4 (Miami value).

Robert L. Eddleman

ROBERT L. EDDLEMAN
State Conservationist

Attachments: IN-CPA-26 (Blank Form)
IN-CPA-26 (Completed Example)

cc: Kent Yeager, SED, ASCS, Indianapolis, IN
David Petritz, Assistant Director, CES, West Lafayette, IN
Harry Nikides, Director, Division of Soil Conservation,
Indianapolis, IN

DIST: 0

PHEL ONSITE DETERMINATION

MAP UNIT NAME Rd B2 Richwoodville SL Acres in Map Unit 1.4
East Map Unit

Length of Slope (L)-Feet	% of Slope (S)	Actual LS	Min. LS	HEL		Acres
				Yes	No	
100	4	0.400	0.601		✓	1.4
TOTAL HEL (Yes) ACRES IN FIELD						0

TOTAL ACRES OF MAP UNIT HEL 0 ÷ by Total Acres in Map Unit 1.4 X 100 = 0 %
 (PHEL unit is HE if total HE in unit is 75% or greater)

MAP UNIT IS HEL? Yes No

FIELD NOTES:

PHEL ONSITE DETERMINATION

MAP UNIT NAME Rd B2 Richwoodville SL Acres in Map Unit 1.2
West Map Unit

Length of Slope (L)-Feet	% of Slope (S)	Actual LS	Min. LS	HEL		Acres
				Yes	No	
75	3	0.264	0.601		✓	1.2
TOTAL HEL (Yes) ACRES IN FIELD						0

TOTAL ACRES OF MAP UNIT HEL 0 ÷ by Total Acres in Map Unit 1.2 X 100 = 0 %
 (PHEL unit is HE if total HE in unit is 75% or greater)

MAP UNIT IS HEL? Yes No

FIELD NOTES:

