

DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

CECW-OR

6 MAR 1992

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Clarification and Interpretation of the 1987 Manual

1. The purpose of this memorandum is to provide additional clarification and guidance, concerning the application of the Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, January 1987, Final Report (1987 Manual). As discussed, in my 20 February 1992 memorandum, procedures for the identification and delineation of wetlands must be fully consistent with both the 1987 Manual and the Questions and Answers issued 7 October 1991. The technical and procedural guidance contained in paragraphs 2 thru 6 below has been prepared by the Waterways Experiment Station (WES) and is provided as further guidance. The following guidance is considered to be consistent with the 1987 Manual and the 7 October Questions and Answers. Further, this guidance will be presented in the upcoming Regulatory IV wetlands delineation training sessions in FY 92. The alternative technical methods of data gathering discussed below are acceptable as long as the basic decision rules (i.e., criteria and indicators) established in the 1987 Manual are applied. Also enclosed is a revised data form which may be used in lieu of the routine data sheet provided with the 1987 Manual, if desired. As discussed in my 20 February 1992 memorandum to the field, regional approaches and/or alternative data sheets must be reviewed and approved by HQUSACE (CECW--OR) prior to regional implementation. Notwithstanding this requirement, we encourage interagency coordination and cooperation on implementation of the 1987 Manual. Such cooperation can facilitate the continued success of our use of the 1987 Manual.

2. Vegetation:

a. Basic rule: More than 50 percent of dominant species from all strata are OBL, FACW, or FAC (excluding FAC-) on the appropriate Fish and Wildlife Service regional list of plant species that occur in wetlands.

b. The 1987 Manual provides that the 3 most dominant species be selected from each stratum (select 5 from each stratum if only 1-2 strata are present) . However, alternative ecologically based methods for selecting dominant species from each stratum are also acceptable. The dominance method described in the 1989 interagency manual is an appropriate alternative

method. (1989 Manual, p. 9, para. 3.3)

c. The 4 vegetation strata (tree, sapling/shrub, herb, and woody vine) described in the 1987 Manual are appropriate. However, a 5-stratum approach (tree, sapling, shrub, herb, and woody vine) is an acceptable alternative.

d. The 1987 Manual states on page 79 that hydrophytic vegetation is present if 2 or more dominant species exhibit morphological adaptations or have known physiological adaptations for wetlands. This rule should be used only after the basic rule is applied; use caution with adaptations (e.g., shallow roots that can develop for reasons other than wetness). Furthermore, the morphological adaptations must be observed on most individuals of the dominant species.

e. In areas where the available evidence of wetlands hydrology or hydric soil is weak (e.g., no primary indicators of hydrology), the Facultative Neutral (FAC neutral) option may be used to help clarify a wetland delineation. Use of the FAC neutral option is explained in paragraph 35(a), page 23, of the 1987 Manual. Use of the FAC neutral option is at the discretion of the District. Further, the FAC neutral option can not be used to exclude areas that meet the "basic vegetation rule" and the hydrology and hydric soil requirements.

3. Hydrology:

a. Areas which are seasonally inundated and/or saturated to the surface for a consecutive number of days for more than 12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met. Areas wet between 5 percent and 12.5 percent of the growing season in most years (see Table 5, page 36 of the 1987 Manual) may or may not be wetlands. Areas saturated to the surface for less than 5 percent of the growing season are non-wetlands. Wetland hydrology exists if field indicators are present as described herein and in the enclosed data sheet.

b. To evaluate hydrologic data (e.g., from stream gages or groundwater wells) growing season dates are required. Soil temperature regime (i.e., period of the year when soil temperature at 20 inches below the surface is above 5 C) is the primary definition of growing season, but data are rarely available for individual sites. Broad regions based on soil temperature regime (e.g., mesic, thermic) are not sufficiently site-specific. For wetland determinations, growing season can be estimated from climatological data given in most SCS county soil

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surveys (usually in Table 2 or 3 of modern soil surveys). Growing season starting and ending dates will generally be determined based on the "28 degrees F or lower" temperature threshold at a frequency of "5 years in 10". In the south, at the discretion of the district, it may be more appropriate to use the 32 degree F threshold.

C. In groundwater-driven systems, which lack surface indicators of wetland hydrology, it is acceptable to use local Soil Conservation Service (SCS) soil survey information to evaluate the hydrology parameter (p. 37 in the Manual) in conjunction with other information, such as the FAC neutral test. Use caution in areas that may have been recently drained.

d. Oxidized rhizospheres surrounding living roots are acceptable hydrology indicators on a case-by-case basis and may be useful in groundwater systems. Use caution that rhizospheres are not relicts of past hydrology. Rhizospheres should also be reasonably abundant and within the upper 12-inches of the soil profile. Oxidized rhizospheres must be supported by other indicators of hydrology such as the FAC neutral option if hydrology evidence is weak.

4. Soil:

a. The most recent version of National Technical Committee for Hydric Soils hydric soil criteria will be used. At this writing, criteria published in the June 1991 Hydric Soils of the United States are current. These criteria specify at least 13 consecutive days of saturation or 7 days of inundation during the growing season in most years.

b. Local Lists of Hydric Soil Mapping Units recently developed by SCS and available from county or State SCS offices give local information about presence of hydric soils on a site. When available, these local lists take precedence over the national list for hydric soil determinations.

c. SCS is currently developing regional indicators of significant soil saturation. Until finalized and adopted, these indicators may not be used for hydrology or hydric soil determinations.

d. The statement (p. 31 of the 1987 Manual) that gleyed and low-chroma colors must be observed "immediately below the A-horizon or 10 inches (whichever is shallower)" is intended as general guidance. Certain problem soils may differ.

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5. Methods:

a. As stated in the 1987 Manual (footnote, p. 76), alternative plot sizes and dominance measures are acceptable.

b. For comprehensive determinations involving a patchy or diverse herb layer, a single, centrally located 3.28 x 3.28foot quadrat may not give a representative sample. As an alternative, the multiple-quadrat procedure presented in the 1989 Manual (p.42) is recommended.

6. Problem Areas

a. Page 93, paragraph 78 of the 1987 Manual states that similar problem situations may occur in other wetland types, therefore, problem areas are not limited to this list.

b. Problem soil situations mentioned elsewhere in the Manual include soils derived from red parent materials, some Entisols, Mollisols, and Spodosols.

7. Questions concerning this information should be directed to Ms. Karen A. Kochenbach, HQUSACE (CECW-OR), at (202) 272-1784, or Mr. James S. Wakeley, WES, at (601) 634-3702.

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