



DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

CESAM-RD
Special Public Notice No. SAM-2008-1944-TMZ

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U. S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT

INTERIM REGIONAL SUPPLEMENT
to the
1987 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL:
ATLANTIC and GULF COASTAL PLAIN REGION

TO WHOM IT MAY CONCERN:

The U.S. Army Corps of Engineers, Mobile District, announces the publication and one-year trial implementation period of the Atlantic and Gulf Coastal Plain Interim Regional Supplement (Supplement) to the 1987 Wetland Delineation Manual (1987 Manual). This Supplement was developed by wetland delineation experts from state and Federal agencies and academia with experience within the Atlantic and Gulf coastal plain region. It has been peer reviewed by an independent panel of scientists and practitioners and made available for 90-day public comment period. This interim document will be tested for one year prior to finalization; the one year period will be effective 30 days from the date of this public notice. The supplement will be field tested by interagency teams of state and Federal scientists to assess its clarity and ease of use, and to determine whether its use will result in any spatial changes in wetland delineation for Clean Water Act purposes. Comments on this supplement should be submitted to Jennifer McCarthy (CECW-CO), U.S. Army Corps of Engineers, 441 G Street, NW, Washington DC 20314-1000 or by email to 1987Manual@usace.army.mil.

The 1987 Manual, this supplement, including data forms and field evaluation questionnaire, as well as the independent peer review report and response document, the environmental assessment/FONSI prepared under NEPA, and copies of public comments are available on the Regulatory Homepage Website at http://www.usace.army.mil/inet/functions/cw/cecwo/reg/reg_supp.htm

The following guidance is superseded by this Supplement, and is hereby rescinded by this public notice:

"Implementation of the 1987 Corps Wetland Delineation Manual," memorandum from John P. Elmore dated 27 August 1991.

"Questions & Answers on the 1987 Manual," memorandum from John F. Studt dated 7 October 1991.

"Clarification and Interpretation of the 1987 Manual," memorandum from Major General Arthur E. Williams dated 6 March 1992.

"Revisions to National Plant Lists," memorandum from Michael L. Davis dated 17 January 1996.

"NRCS Field Indicators of Hydric Soils," memorandum from John F. Studt dated 21 March 1997.

Region and subregion boundaries are depicted in these documents as sharp lines. However, climatic conditions and the physical and biological characteristics of landscapes do not change abruptly at the boundaries. In reality, regions and subregions often grade into one another in broad transition zones that may be tens or hundreds of miles wide. The lists of wetland indicators presented in these Regional Supplements may differ between adjoining regions or subregions. In transitional areas, investigators must use experience and good judgment to select the supplement and indicators that are appropriate to the site based on its physical and biological characteristics. Wetland boundaries are not likely to differ between two supplements in transitional areas, but one supplement may provide more detailed treatment of certain problem situations encountered on the site. If in doubt about which supplement to use in a transitional area, apply both supplements and compare the results. For additional guidance, contact the appropriate Corps of Engineers District Regulatory Office. Contact information for District regulatory offices is available at the Corps Headquarters web site <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/district.htm>.

Effective 30 days from the date of this public notice, the Supplement data forms and indicators must be used for any data collection for wetland delineations. Field data collected for wetland delineations using the 1987 Manual prior to the effective date of this notice, but not yet submitted to the appropriate Corps District for review and formal approval, will be grandfathered. Documentation must be submitted to the appropriate Corps District which clearly shows the field data was collected prior to 30 days from the date of this notice in order to qualify for this grandfather provision. Once this documentation and the field data have been reviewed and approved by the appropriate Corps District, a written determination will be issued.

While we are confident the Supplement will improve the accuracy of wetland delineation in the Atlantic and Gulf Coastal Plain region, anyone performing a wetland delineation during this interim period using the Supplement who believes it has resulted in a significantly different boundary line than the 1987 Manual may also complete the delineation using the 1987 Manual and submit both delineations. Enough points to adequately describe the representative plant communities, soils, and hydrology of the site(s) and to clearly document the difference in boundaries between the two methods must be included. Data recorded on both the existing 1992 data forms and the new Supplement data forms, maps indicating the location of the field site and data collection points (upland and wetland), and a completed field evaluation questionnaire for each delineation must be submitted as part of the jurisdictional determination request to the appropriate Corps District Office. The District will make the final determination based on analysis of all the submitted information. This information will also be used in evaluation and potential modification of the Supplement.

Please contact Tad M. Zebryk, District Coordinator, at (251) 694-3779 or by email at tad.m.zebryk@usace.army.mil, if you have any questions. For additional information about our Regulatory Program, please visit our web site at www.sam.usace.army.mil/RD/reg.

MOBILE DISTRICT
U.S. Army Corps of Engineers

Enclosures:

1. Wetland Delineation Field Evaluation Questionnaire
2. Field Testing Protocol
3. Wetland Determination Data Form - Atlantic and Gulf Coastal Plain Region

WETLAND DELINEATION FIELD EVALUATION QUESTIONNAIRE

This questionnaire should be completed for each boundary delineation performed. The assumption is that two communities were evaluated, one wetland (= "lower community") and one upland (= "upper community") so that a boundary between them could be identified. Fill in the blanks or check spaces as appropriate. Attach copies of the completed field data forms.

Site Name or Location _____ Date _____
Evaluator(s) _____ Affiliation(s) _____

General Site Characteristics

Is the site ___ typical or ___ problematic? *If problematic, explain:* _____

Wetland (lower community)

Ecological System: ___ Saline Tidal ___ Fresh Tidal ___ Fresh Nontidal ___ Saline Nontidal
Wetland Type: ___ Forested ___ Shrub ___ Emergent ___ Moss/Lichen ___ Farmed (hay or crop)
 ___ Other (specify _____)
HGM Class: ___ Depression ___ Riverine ___ Fringe ___ Slope ___ Flat
Vegetative Cover: ___ Dense ___ Evenly Mixed w/Nonvegetated ___ Sparse

Nonwetland (upper community)

Habitat Type: ___ Forest ___ Shrub ___ Meadow/Prairie ___ Moss/Lichen ___ Farmed
 ___ Other (specify: _____)

1. Was there a marked difference in the two plant communities? ___ Yes ___ No
2. Was there a gradual change in vegetation between the two communities creating a significant "transition zone" between? ___ Yes ___ No. If so, how wide was this transition zone? _____ feet
3. Was there an abrupt topographic change between the two communities? ___ Yes ___ No

Boundary Determination

Compare results from the two methods: (1) current practice using the 1987 Manual and guidance memos, and (2) 1987 Manual with the draft Regional Supplement.

1. The wetland boundary was: ___ the same or ___ different.
2. If different, which method produced the boundary higher on the landscape?
 ___ Manual with current guidance or ___ Manual with Regional Supplement
3. What was the linear distance between the two boundaries? _____ feet
4. What type of indicator(s) were responsible for the difference in the boundaries?
 ___ Hydrophytic vegetation ___ Hydric soil ___ Wetland hydrology (*check all that apply*)

Assessment of the Indicators

Hydrophytic Vegetation

1. Did the lower community pass the current basic test for hydrophytic vegetation (i.e., >50% of the dominants had an indicator status of FAC or wetter, *excluding FAC-*)? ___ Yes ___ No
2. Did the lower community pass the "dominance test" in the Regional Supplement (i.e., >50% of the dominants were FAC or wetter, *counting FAC- as FAC*)? ___ Yes ___ No
3. What other indicators of hydrophytic vegetation were observed in the lower community?
 - a) List those from the Manual with current guidance: _____

- b) List those from the Regional Supplement: _____

4. Was the vegetation in the lower community a problematic wetland community type?
___ Yes ___ No. *If so, briefly describe and explain how the problem was handled* _____

5. Did the upper community pass the current basic test for hydrophytic vegetation (i.e., >50% of the dominants had an indicator status of FAC or wetter, *excluding FAC-*)? ___ Yes ___ No
6. Did the upper community pass the "dominance test" in the Regional Supplement (i.e., >50% of the dominants were FAC or wetter, *counting FAC- as FAC*)? ___ Yes ___ No
7. What other indicators of hydrophytic vegetation were observed in the upper community?
 - a) List those from the Manual with current guidance: _____

- b) List those from the Regional Supplement: _____

8. Did both methods reach the same conclusion regarding the presence of hydrophytic vegetation for the upper community? ___ Yes ___ No. *If not, briefly explain* _____

9. Were the hydrophytic vegetation indicators in the Regional Supplement clearly described and easy to apply? ___ Yes ___ No. *If not, briefly explain* _____

Hydric Soil

1. Did both methods find indicators of hydric soil in the lower community? ___Yes ___No

a) List those from the Manual with current guidance: _____

b) List those from the Regional Supplement: _____

2. Did the lower community contain a problematic hydric soil (i.e., one that lacked indicators)?

___Yes ___No. *If so, briefly describe the problem and explain how it was handled:* _____

3. Did both methods reach the same conclusion regarding the presence of hydric soil in the upper community? ___Yes ___No. *If not, briefly explain* _____

a) List indicators from the Manual with current guidance: _____

b) List indicators from the Regional Supplement: _____

4. Were the hydric soil indicators in the Regional Supplement clearly described and easy to apply? ___Yes ___No. *If not, briefly explain* _____

Wetland Hydrology

1. Did both methods determine that wetland hydrology was present in the lower community?

(Requires 1 primary indicator or 2 secondary indicators.) ___Yes ___No

a) List indicators from the Manual with current guidance:

Primary: _____ Secondary: _____

b) List indicators from the Regional Supplement:

Primary: _____ Secondary: _____

2. Did the lower community contain a problematic wetland hydrology situation (i.e., one that lacked indicators)?

Yes No. *If so, briefly describe the problem and explain how it was handled:* _____

3. Did both methods reach the same conclusion regarding wetland hydrology for the upper community? Yes No. *If not, briefly explain* _____

a) List indicators from the Manual with current guidance:

Primary: _____ Secondary: _____

b) List indicators from the Regional Supplement:

Primary: _____ Secondary: _____

4. Were the wetland hydrology indicators in the Regional Supplement clearly described and easy to apply? Yes No. *If not, briefly explain* _____

Comments on the Regional Supplement

1. Were the indicators and procedures in the Supplement clear and easy to apply?

Yes No. *If not, how could they be improved?* _____

2. In your opinion, did the Regional Supplement make this wetland determination more defensible? Yes No. *Briefly explain* _____

3. Based on your testing, do you want to recommend other indicators that should be considered for further evaluation? Yes No. *List by indicator type:* _____

4. Was the Regional Supplement's field data form complete, understandable, and easy to fill out? Yes No. *If not, how could it be improved?* _____

5. Any additional comments or suggestions? _____

Field Testing Protocol

Atlantic and Gulf Coastal Plain Regional Supplement

Organization of field testing teams:

District Offices of the Corps of Engineers in the Atlantic and Gulf Coastal Plain Region (see the list of District coordinators at the end of this document) will coordinate and oversee the field testing of the draft Regional Supplement. Field testing will be done in cooperation with regional NRCS, EPA, FWS, and other interested federal and state agencies and universities.

Field teams will consist of available interagency experts, with the constraint that each team must include an experienced botanist and a soil scientist to ensure the accuracy and reliability of the basic data.

If needed, the District coordinator will provide team members with an introduction to the Regional Supplement and will explain any new or unfamiliar indicators as necessary to avoid confusion over interpretation of the indicators.

Site Selection:

Testing teams should focus on areas where permitting activity is high. There is no need to sample remote areas unless convenient opportunities arise.

Sample a number of typical wetland sites in each District or subregion, plus a selection of available "problem" situations. Problem situations should include, if possible, areas with unusual plant communities or soil types that may lack indicators, requiring use of Chapter 5 (Difficult Wetland Situations in the Atlantic and Gulf Coastal Plain Region) to make the wetland determination.

Approach:

The basic testing approach is to document at least 2 sampling points at each field site, one point in the wetland and one point in the adjacent upland, and determine the location of the wetland boundary between them. The team should collaborate to make the determination and documentation as accurate as possible. Follow these general steps:

1. Document each sampling point based on existing practice (i.e., 1987 Manual with existing guidance memos and existing local interpretation). For each point, completely fill out the old (1992) wetland determination data form. Locate the wetland boundary based on current practice.

2. Document each point using the new (Regional Supplement) data form. Locate the wetland boundary based on indicators and guidance given in the Regional Supplement.
3. If the two wetland boundaries are different, measure the distance between them.
4. Fill out the attached questionnaire (one copy per field site) to help explain any differences seen in the two methods.
5. For each field site sampled, submit the following items to the appropriate District coordinator:
 - a. Completed 1992 and Regional Supplement data forms for each sampling point
 - b. Sketch map of the site with sampling points, wetland boundaries, and any other important features indicated
 - c. One copy of the Field Evaluation Questionnaire
 - d. Optional brief report as necessary to explain test results

List of Corps District Coordinators in the Atlantic and Gulf Coastal Plain Region:

Charles Allred, U.S. Army Engineer District, Vicksburg, MS, 601-631-5546
James Clark, U.S. Army Engineer District, Memphis, TN, 901-544-0735
Andrew Commer, U.S. Army Engineer District, Tulsa, OK, 918-669-7616
John Davidson, U.S. Army Engineer District, Galveston, TX, 409-766-3933
Thomas Fischer, U.S. Army Engineer District, Savannah, GA, 229-430-8566
Randy Fowler, U.S. Army Engineer District, Charleston, SC, 843-329-8134
Michael Hayduk, U.S. Army Engineer District, Philadelphia, PA, 215-656-5822
Robert Heffner, U.S. Army Engineer District, New Orleans, LA, 504-862-2274
David Knepper, U.S. Army Engineer District, Norfolk, VA, 757-201-7488
David Lekson, U.S. Army Engineer District, Wilmington, NC, 252-975-1616 x22
David Madden, U.S. Army Engineer District, Fort Worth, TX, 817-886-1741
Frank Plewa, U.S. Army Engineer District, Baltimore, MD, 717-249-2522
Stuart Santos, U.S. Army Engineer District, Jacksonville, FL, 904-232-2018
Tim Scott, U.S. Army Engineer District, Little Rock, AR, 501-324-5295
Michael Vissichelli, U.S. Army Engineer District, New York, NY, 917-790-8520
Tad Zebryk, U.S. Army Engineer District, Mobile, AL, 251-694-3779

VEGETATION – Use scientific names of plants.

Sampling Point: _____

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	_____ = Total Cover			Prevalence Index worksheet: _____ Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	_____ = Total Cover			
Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	_____ = Total Cover			
Herb Stratum (Plot size: _____)				Definitions of Vegetation Strata: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	_____ = Total Cover			
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No _____
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
	_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) (LRR P, T, U)
- 5 cm Mucky Mineral (A7) (LRR P, T, U)
- Muck Presence (A8) (LRR U)
- 1 cm Muck (A9) (LRR P, T)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Coast Prairie Redox (A16) (MLRA 150A)
- Sandy Mucky Mineral (S1) (LRR O, S)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR P, S, T, U)

- Polyvalue Below Surface (S8) (LRR S, T, U)
- Thin Dark Surface (S9) (LRR S, T, U)
- Loamy Mucky Mineral (F1) (LRR O)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR U)
- Depleted Ochric (F11) (MLRA 151)
- Iron-Manganese Masses (F12) (LRR O, P, T)
- Umbric Surface (F13) (LRR P, T, U)
- Delta Ochric (F17) (MLRA 151)
- Reduced Vertic (F18) (MLRA 150A, 150B)
- Piedmont Floodplain Soils (F19) (MLRA 149A)
- Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR O)
- 2 cm Muck (A10) (LRR S)
- Reduced Vertic (F18) (outside MLRA 150A,B)
- Piedmont Floodplain Soils (F19) (LRR P, S, T)
- Anomalous Bright Loamy Soils (F20) (MLRA 153B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12) (LRR T, U)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (Inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks: