

Regionalizing the Corps of Engineers Wetland Delineation Manual

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Why?

- Regional variability in wetland conditions due to climate, geology, landforms, altitude, and biogeography
- Failure to regionalize can result in :
 - ▶ Inconsistent and controversial wetland determinations
 - ▶ Proliferation of “Problem Area” situations

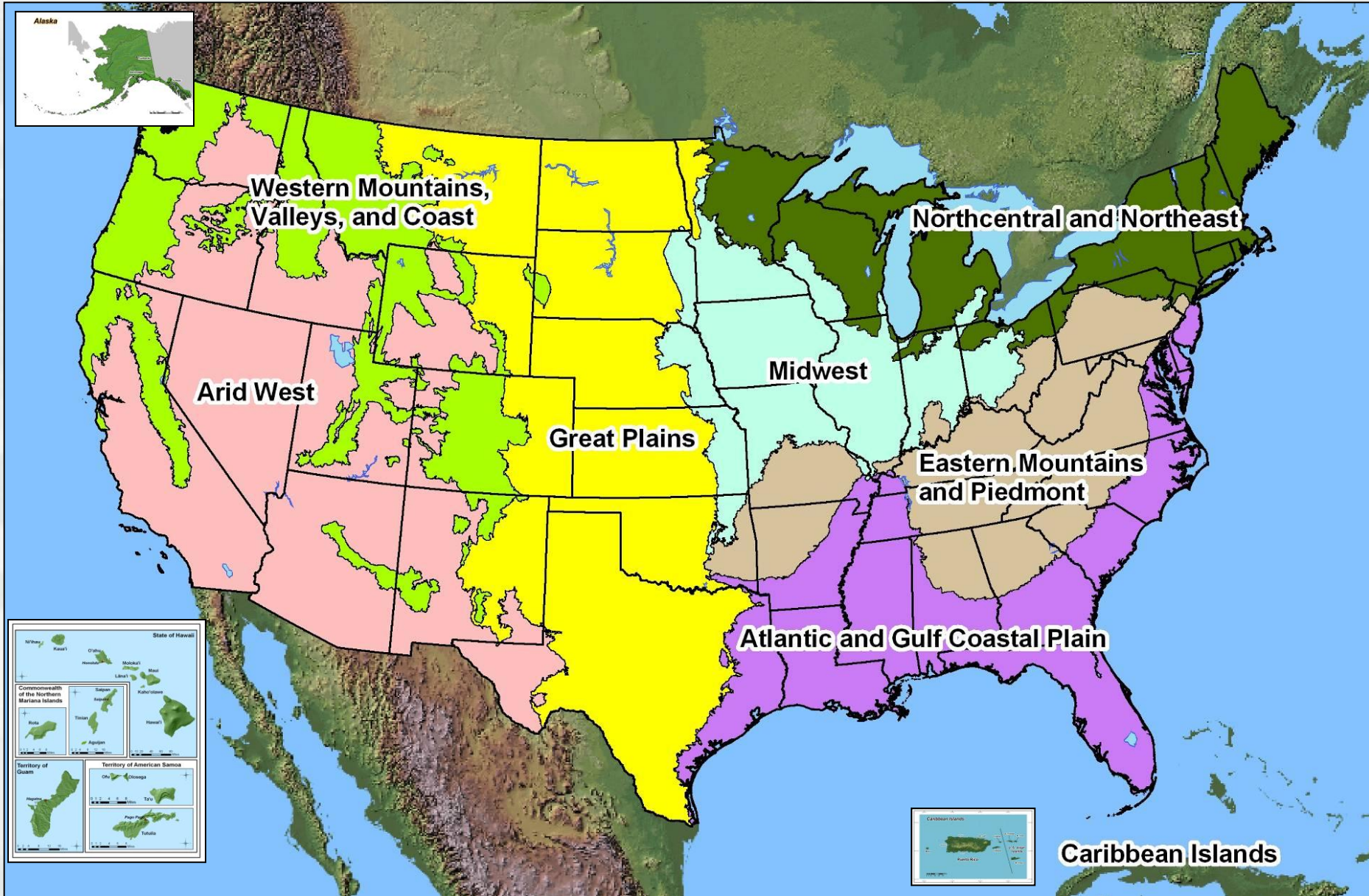


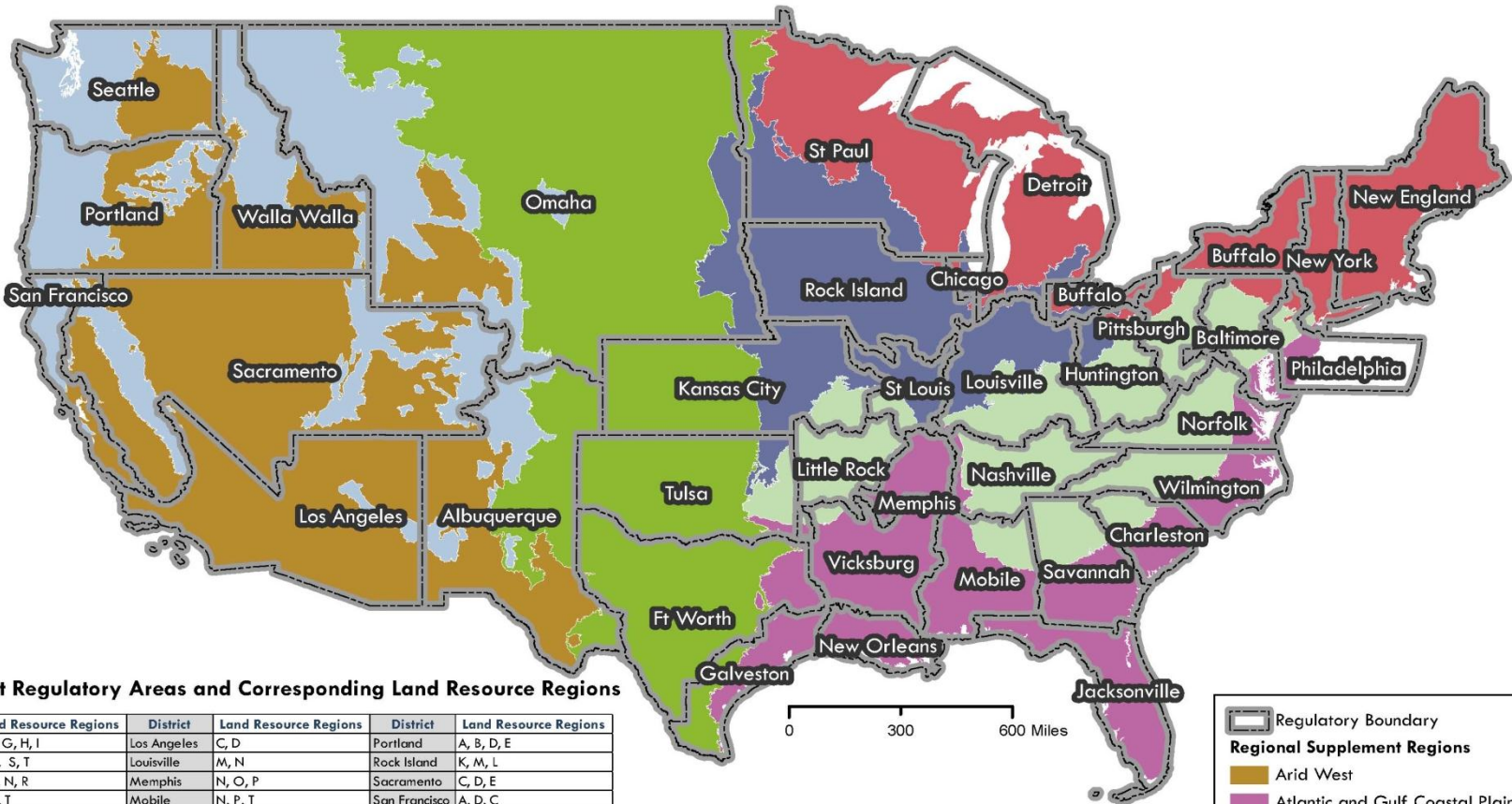
Why?

- To be technically and legally defensible, the manuals should reflect the state-of-the-science
- Work with National Technical Committees to incorporate the best available procedures and approaches
- In a 1995 report, the National Academy of Sciences recommended that the Corps Manual be updated and regionalized



Regional Supplements





Corps District Regulatory Areas and Corresponding Land Resource Regions

District	Land Resource Regions	District	Land Resource Regions	District	Land Resource Regions
Albuquerque	D, E, G, H, I	Los Angeles	C, D	Portland	A, B, D, E
Baltimore	N, R, S, T	Louisville	M, N	Rock Island	K, M, L
Buffalo	L, M, N, R	Memphis	N, O, P	Sacramento	C, D, E
Charleston	N, P, T	Mobile	N, P, T	San Francisco	A, D, C
Chicago	M, K, L	Nashville	P, N	Savannah	N, P, T
Detroit	K, L, M	New England	R, S	Seattle	A, B, E
Fort Worth	D, H, I, J, P, T	New Orleans	O, P, T	St. Louis	M, N
Galveston	I, J, P, T	New York	L, R	St. Paul	F, M, K
Huntington	M, N, R	Norfolk	N, P, S, T	Tulsa	G, H, N, M, J, P
Jacksonville	P, T, U	Omaha	D, E, F, G, H, M	Vicksburg	O, P
Kansas City	H, J, M, N	Pittsburgh	R, S, N	Walla Walla	B, D, E
Little Rock	N, O, P	Philadelphia	R, S, T	Wilmington	N, P, T

0 300 600 Miles

 Regulatory Boundary

Regional Supplement Regions


-  Arid West
-  Atlantic and Gulf Coastal Plain
-  Eastern Mountains and Piedmont
-  Great Plains
-  Midwest
-  Northcentral and Northeast
-  Western Mountains, Valleys, and Coast



Regional Supplements

ERDC/EL TR-10-16

Environmental Laboratory




US Army Corps of Engineers
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Wetlands Regulatory Assistance Program

Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)


U.S. Army Corps of Engineers August 2010



Approved for public release; distribution is unlimited.

ERDC/EL TR-12-5

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Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Hawai'i and Pacific Islands Region (Version 2.0)


U.S. Army Corps of Engineers February 2012



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ERDC/EL TR-07-24

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Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (Version 2.0)


U.S. Army Corps of Engineers September 2007



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ERDC/EL TR-08-28

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Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)


U.S. Army Corps of Engineers September 2008



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ERDC/EL TR-12-9

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Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (Version 2.0)


U.S. Army Corps of Engineers April 2012



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ERDC/EL TR-12-1

Environmental Laboratory




US Army Corps of Engineers
Engineer Research and Development Center

Wetlands Regulatory Assistance Program

Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)

U.S. Army Corps of Engineers January 2012



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Publication Schedule:

Regional Supplement

Target Date

-
- **Alaska** **Published**
 - **Arid West** **Published**
 - **Western Mountains, Valleys, and Coast** **Published**
 - **Great Plains** **Published**
 - **Midwest** **Published**
 - **Atlantic and Gulf Coastal Plain** **Published**
 - **Caribbean Islands** **Published**
 - **Northcentral and Northeast** **Published**
 - **Hawaii and Pacific Islands** **Published**
 - **Eastern Mountains and Piedmont** **Published**



Steps in the development and implementation of a Regional Supplement

- Form a Regional Working Group of wetland experts
- Draft the Regional Supplement
- Review of the draft supplement by the interagency National Advisory Team (NAT)
- Review by an Independent Peer-Review Team
- Field test the draft supplement
- Release the draft supplement for public comment
- Finalize and publish
- Corps Districts in the region release Public Notices implementing the “interim” supplement for a 1-year trial
- Revise and publish Version 2.0
- Release Public Notices for final Regional Supplement implementation



Table 1. Sections of the Corps Manual replaced by this Regional Supplement for applications in the Atlantic and Gulf Coastal Plain Region.

Item	Replaced Portions of the Corps Manual (Environmental Laboratory 1987)	Replacement Guidance (this Supplement)
Hydrophytic Vegetation Indicators	Paragraph 35, all subparts, and all references to specific indicators in Part IV	Chapter 2
Hydric Soil Indicators	Paragraphs 44 and 45, all subparts, and all references to specific indicators in Part IV	Chapter 3
Wetland Hydrology Indicators	Paragraph 49(b), all subparts, and all references to specific indicators in Part IV	Chapter 4
Growing Season Definition	Glossary	Chapter 4, Growing Season; Glossary
Hydrology Standard for Highly Disturbed or Problematic Wetland Situations	Paragraph 48, including Table 5 and the accompanying User Note in the online version of the Manual	Chapter 5, Wetlands that Periodically Lack Indicators of Wetland Hydrology, Procedure item 3(h)

Contents of a Regional Supplement

- 1. Description of the region**
- 2. Hydrophytic vegetation indicators**
- 3. Hydric soil indicators**
- 4. Wetland hydrology indicators**
- 5. Guidance for “difficult wetland situations” in the region**
- 6. Data form, Glossary, References, Appendices**



Relationship to SWANCC and Rapanos

- Will have no effect on questions regarding Section 404 jurisdiction.
- Purpose of regionalizing the Corps Manual is to provide the most current scientific and technical information for identifying wetlands and determining their boundaries.
- Whether or not a wetland is regulated under Section 404 is an entirely different and separate issue.



Thanks to all of our partners in this effort Over 275 individuals participated!

State and Local

- Alaska Department of Environmental Conservation
- Arkansas Highway and Transportation Department
- Arkansas Multi-Agency Wetland Planning Team
- Florida Department of Environmental Protection
- Hawaii Department of Land and Natural Resources
- Indiana Department of Environmental Management
- Iowa Department of Transportation
- Lake County Illinois Forest Preserve
- Louisiana Department of Natural Resources
- Maine Department of Agriculture
- Maryland Department of the Environment
- Minnesota Board of Water and Soil Resources
- Minnesota Department of Environmental Quality
- Nebraska Game and Parks Commission
- New York Department of Environmental Conservation
- Ohio Environmental Protection Agency
- Oregon Department of State Lands
- Puerto Rico Department of Natural and Environmental Resources
- Southeast Wisconsin Planning Commission
- Tennessee Department of Environment and Conservation
- Texas Department of Transportation
- Texas Parks and Wildlife Department
- Toledo Ohio Metropolitan Park District
- Washington Department of Ecology

Federal

- US Army Corps of Engineers
- USDA Natural Resources Conservation Service
- US Environmental Protection Agency
- US Fish and Wildlife Service
- US Forest Service

University

- Austin Peay State University
- Colorado State University
- Stephen F. Austin State University
- Tennessee Tech University
- Texas A&M University
- University of Alaska
- University of Hawaii, Manoa

Other

- Approximately 75 people, mostly private-sector experts, have served on independent peer-review teams for each Regional Supplement.



National Technical Committee for Wetland Vegetation

Paul Minkin

5 June 2012



US Army Corps of Engineers – New England District

National Technical Committee for Wetland Vegetation (NTCWV)

- Established in 2007 to evaluate various technical and scientific vegetation topics related to wetland delineation
- Supports the process of the regionalization and update of the USACE Wetland Delineation Manual
- Supports the National Wetland Plant List (NWPL)

Responsibilities

- Improving plant science in the wetlands regulatory programs by providing continuing technical leadership in the evaluation, formulation, and application of wetland vegetation sampling protocols, study design, and calculation methods for hydrophytic vegetation as used in Federal wetland delineation methods

Responsibilities (cont.)

- Advise and interact with the NWPL National Panel on concepts for assigning indicator statuses, lend support on technical issues (including indicator status challenges), and interact on needs for updates

NTCWV documents

- Housed on NWPL website:
http://wetland_plants.usace.army.mil
- Meeting minutes
- Publications

Products

- Recommendations to USACE Headquarters and the National Advisory Team for Wetland Delineation concerning vegetation issues related to the identification of wetlands and the update and regionalization of the USACE Wetland Delineation Manual
- Technical support to the NWPL through the update process

Products (cont.)

- Make recommendations for needed research and devise ways for such research to be undertaken.
 - Work of full committee
 - Work of committee subgroup
 - Work of individual committee members and their parent organization
 - Inter-university collaboration

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ERDC/CRREL CR-12-1



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Defining Hydrophytes for Wetland Identification and Delineation

Ralph W. Tiner

January 2012

ERDC/CRREL TR-10-9

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The Use of Bryophytes as Indicators of Hydric Soils and Wetland Hydrology during Wetland Delineations in the United States

Jennifer J. Gillrich and Keith C. Bowman

September 2010



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ERDC/CRREL CR-10-3



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Growing Season Definition and Use in Wetland Delineation

A Literature Review

Karen Malone and Hans Williams

August 2010

Cold Regions Research
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ERDC/CRREL CR-10-2



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Development Center

Vegetation Sampling for Wetland Delineation

A Review and Synthesis of Methods and Sampling Issues

Edward Gage and David J. Cooper

July 2010

Current Efforts

- Developing appropriate, unbiased sampling methods for determining hydrophytic vegetation for the update of the USACE Wetland Delineation Manual
- Designing challenge studies for NWPL indicator status challenges

