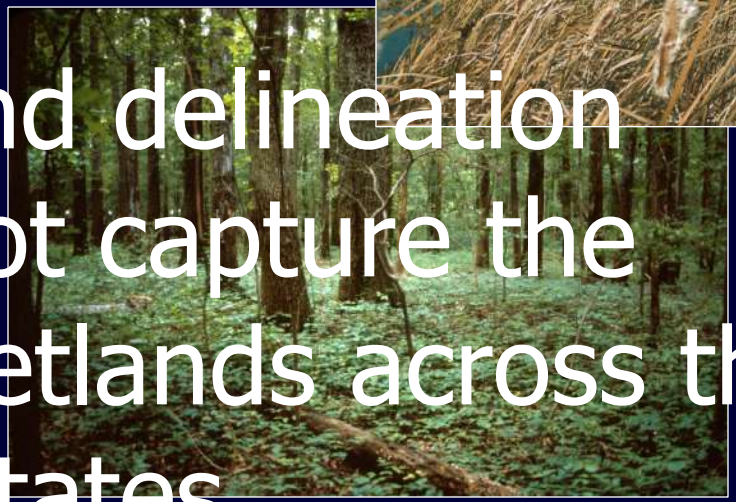
“Regionalizing” the Corps of Engineers Wetland Delineation Manual





National wetland delineation guidance cannot capture the variability of wetlands across the entire United States

Reasons to Regionalize

- Regional variability in wetland conditions due to climate, geology and landforms, and biogeography
- Failure to regionalize can result in inconsistent, arbitrary, and controversial wetland determinations
- To be technically and legally defensible, the Manual should reflect the state-of-the-science
- National Academy of Sciences recommendations

History of the Project

- In 2003, Corps HQ initiated an effort to develop regional supplements to the 1987 wetland delineation manual
  - R&D effort led by ERDC
- Supplements already developed for:
  - Alaska
  - Arid West
  - Western Mountains, Valleys and Coast
  - Great Plains
- Current status and products:
  - http://www.usace.army.mil/cw/cecwo/reg/reg_supp.htm

Interagency Cooperation

National Advisory Team

- EPA, NRCS, FWS, Corps Districts, and ERDC
- Provide technical oversight, consistency, and quality control

Regional Working Groups

Federal, state, and academic experts

Identify technical issues, select wetland indicators, develop regionalized procedures, and help ERDC draft the Regional Supplement

Participate in field testing

Steps in the Process

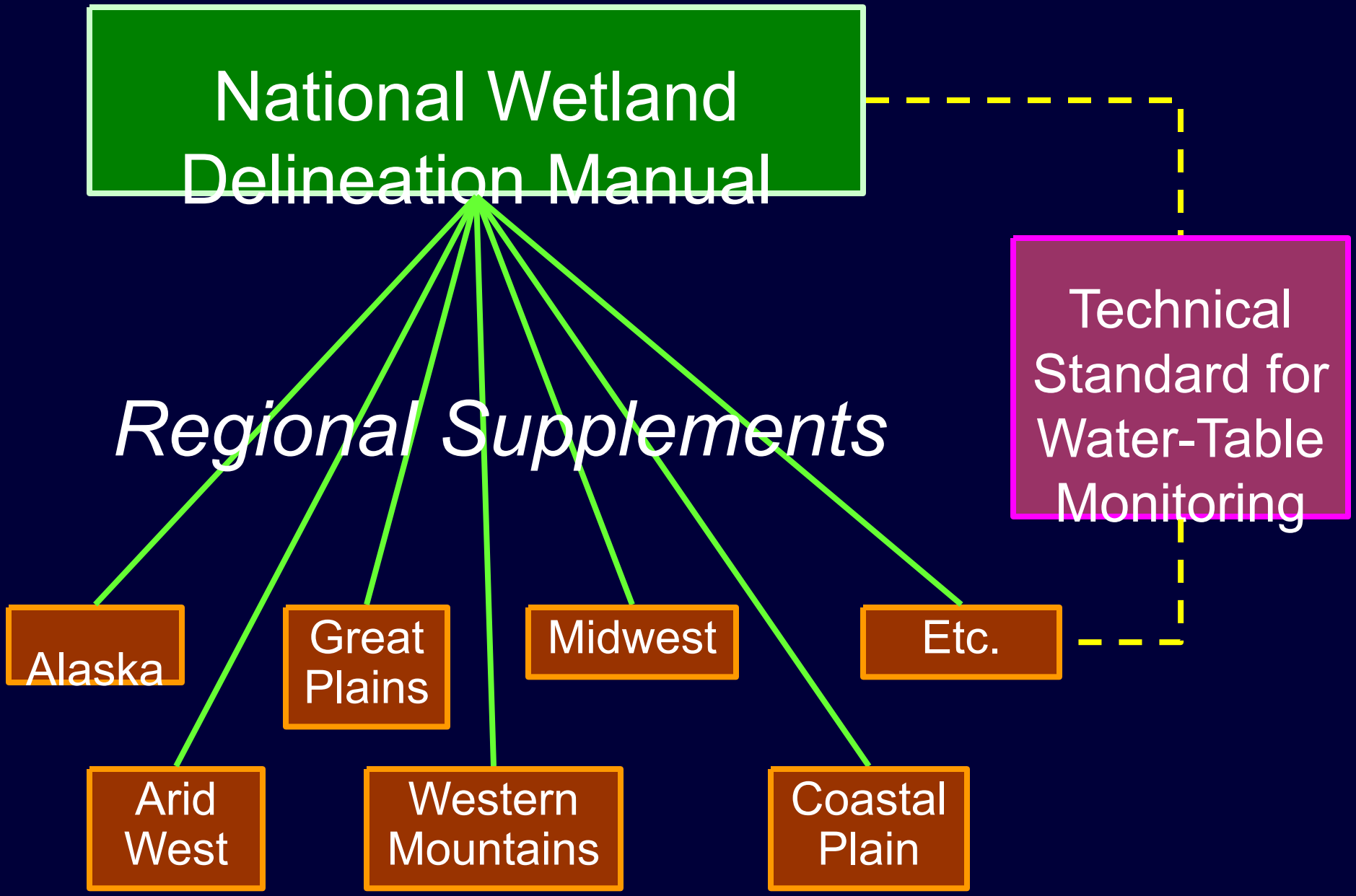
- Develop a Regional Supplement in cooperation with the Regional Working Group
- Review by the National Advisory Team
- Independent peer reviews (including private sector, other federal agencies, and states with regulatory programs)
- Field testing following NAT protocol
- Public notice for review and comments
- Public notice for 1-year interim implementation
- Public notice for final implementation

What won't change?

- The Corps/EPA wetland definition
- The basic three-factor approach to wetland identification (vegetation, soil, hydrology)
- Emphasis on indicator-based wetland determinations
- Jurisdictional reach

Supplements vs. National Manual

- As regional supplements are finalized and implemented, they will replace certain portions of the 1987 delineation manual


National Wetland Delineation Manual
Technical Standard for Water-Table Monitoring
Regional Supplements
Alaska
Great Plains
Midwest
Etc.
Arid West
Western Mountains
Coastal Plain

Regional Supplements

Table 1. Sections of the Corps Manual replaced by this Regional Supplement.		
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(g)

Regional Sampling Protocols

Developed for Alaska and the Arid West:

- Hydrophytic Vegetation
  - 3-step process
- Hydrology
  - Description and local user-note development
- Hydric Soils
  - Description and local user-note development
- Problem Areas and Atypical Situations
  - Identify specific wetland types
  - General procedures for identification

Examples of Regional Indicators

Using cryptogams (mosses, lichens, fungi) in hydrophytic vegetation decisions

Dry soils that appear hydric (e.g., gray parent materials)

Determining growing season (e.g., leaf-out)

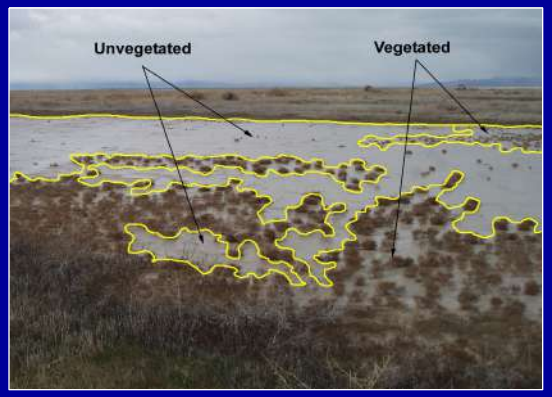
Examples of Regional Indicators

Sand and gravel substrates

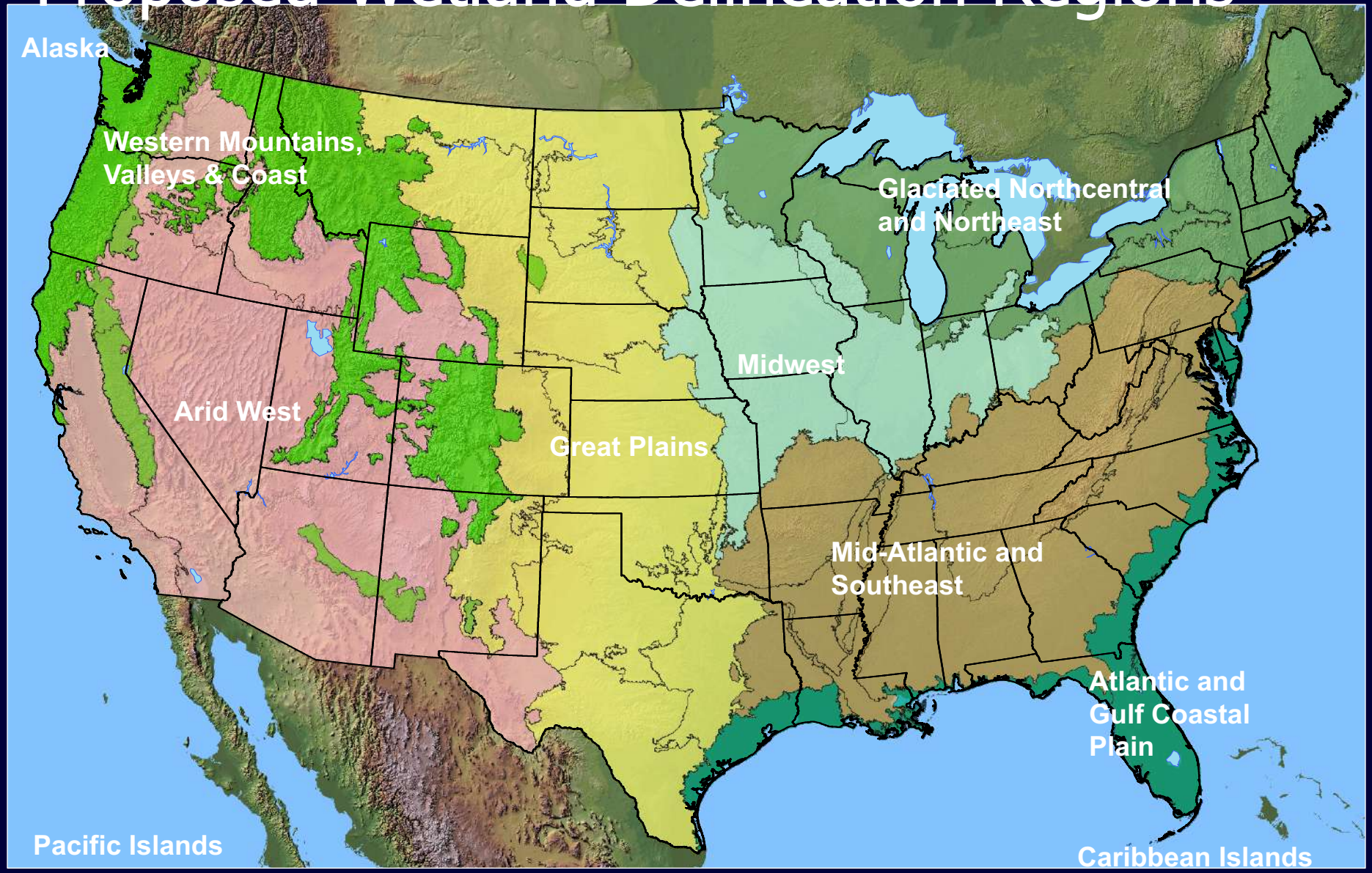
Sparse and patchy vegetation (e.g., playa edges and saline wetlands)

Identifying regional primary/secondary indicators of hydrology (e.g., surface soil cracks, crayfish burrows, macroinvertebrates, algae)

Seasonally frozen soils may develop wetland indicators but be well drained after they thaw



Proposed Wetland Delineation Regions



Contents of the National Delineation Manual

- Corps/EPA wetland definition
- Basics of the three-factor approach
- General definitions of hydrophytic vegetation, hydric soil, and wetland hydrology
  - No specific indicators
- Preliminary data gathering (offsite sources)
- Routine and Comprehensive field methods
- General Atypical Situation guidance
- General Problem Area guidance
- Main Glossary

Contents of a Regional Supplement

- *Chapter 1* – Introduction
  - Applicable region and subregions
  - Physical and biological characteristics of the region
  - Kinds, distribution, and abundance of wetlands
- *Chapter 2* – Hydrophytic vegetation indicators
- *Chapter 3* – Hydric soil indicators
- *Chapter 4* – Wetland hydrology indicators
- *Chapter 5* – Difficult wetland situations in the region (including delineation guidance)
- *Data form*

Role of the Technical Standard for Water-Table Monitoring

- To determine whether wetland hydrology is present on highly disturbed or problematic sites that lack wetland indicators
  - Not intended for routine use or to overrule an indicator-based determination on an undisturbed site
- Provides standards for the design, construction, and installation of water-table monitoring wells, and the collection and interpretation of data
  - http://el.erdc.usace.army.mil/wrap/pdf/tnwrap05-2.pdf

Hydrology – Difficult Wetland Interactions

- Site visits during the dry season
- Periods with below normal rainfall
- Drought years
- Years with unusually low winter snow-pack
- Reference sites
- Hydrology tools
- Evaluating multiple years of aerial photography
- Long-term hydrologic monitoring

Tentative Sequence of Regions

Target Date
For Draft

Alaska2004
Arid West2005
Western Mountains, Valleys & Coast2006
Great Plains2006
Midwest2007
Atlantic and Gulf Coastal Plain2007
Mid-Atlantic and Southeast2008
Caribbean Islands2008
Glaciated Northcentral / Northeast2009
Hawaii / Pacific Islands2009

Relationship to SWANCC, Rapanos/Carabell, etc.

This effort will not affect Section 404 jurisdictional policy. The goal in regionalizing the 1987 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.

Relationship to the Plant Lists

The "regionalization" of the 1987 Manual and the updating of FWS plant lists are separate and independent efforts. The Regional Supplements do not contain any changes to the plant lists.